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DEMONSTRATION OF BIOVENTING FOR REMEDIATION OF CHLORINATED SOLVENT CONTAMINATION AT HILL AIR FORCE BASE OGDEN, UTAH

DATA PACKAGE

VOLUME II

BRUCE C. ALLEMAN JAMES T. GIBBS

BATTELLE ENVIRONMENTAL RESTORATION DEPARTMENT 505 KING AVENUE COLUMBUS OH 43201-2693

25 JANUARY 1999

FINAL REPORT: 1 JUNE 1995 - 31 JANUARY 1999

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REPORT DOCUMENTATION PAGE

Bioventing, Solvent Remediation, Nonpetroleum Hydrocarbons, DCB

18. SECURITY CLASSIFICATION

Unclassified

OF THIS PAGE

17. SECURITY CLASSIFICATION

Unclassified

OF REPORT

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highland, Suite 1204, Attington VA, 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

Davis	Highway, Suite 1204, Arlington, VA 22202-430					
1.	AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AN	ND DATES COVERED		
		25 January 1999	Final Repor	t: 1 June 1995 to 31 Jan 1999		
4.	TITLE AND SUBTITLE			5. FUNDING NUMBERS		
	Demonstration of Bioventing for	Remediation of Chlorinated	Solvent	Contract No. F08637-95-D-6004		
	Contamination at Hill Air Force F	Base, Ogden, Utah. Volume	II of II	Delivery Order 5400		
	Technical Report for Task 4B: Bi	ioventing Non-Petroleum Hye	drocarbons	63723F 2103W503		
6.	6. AUTHOR(S)					
	Bruce C. Alleman and James T.	Gibbs				
7.	PERFORMING ORGANIZATION NAM	E(S) AND ADDRESS(ES)		8. PERFORMING ORGANIZATION		
	Battelle			REPORT NUMBER		
	Environmental Restoration Depart	rtment				
	505 King Avenue					
	Columbus, OH 43201-2693					
	·					
	SPONSORING/MONITORING AGENC	Y NAME(S) AND ADDRESS(ES)		10. SPONSORING/MONITORING		
	Air Force Research Laboratory			AGENCY REPORT NUMBER		
	139 Barnes Drive, Suite 2			AFRL-ML-TY-TR-1999-4508		
	Tyndall Air Force Base, Florida	32403-5323		AFKL-WIE-11-1K-1999-4500		
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11.	SUPPLEMENTARY NOTES					
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Approved for Public Release; Distribution Unlimited (PA Case#99-138)			Α			
13	ABSTRACT (Maximum 200 words)			<u> </u>		
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Thi	s report describes the evaluation of	of the application of bioventir	og technology to non-	netroleum hydrocarhon impacted		
				technology for a variety of petroleum		
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•						
		-		nants impacting Air Force and other		
Department of Defense Installations beyond petroleum hydrocarbons. A pilot-scale bioventing system consisting of a single						
vent well and eight tri-level in situ soil gas monitoring points was installed at Hill Air Force Base, Utah. The system was						
designed to provide oxygen to an anoxic volume of soil and for monitoring the aeration effectiveness and conducting in situ						
	respiration rates. Soil samples were collected at system installation and after approximately one year of system operation.					
Significant reductions in dichlorobenzene concentrations were observed over the one year demonstration, only a small						
portion of which could be accounted for by volatilization. In situ respiration tests indicated that significant biodegradation						
and supported the results observed in the field. The demonstration was supported by personnel in the Hill Air Force Base						
Environmental Management Office.						
	s volume contains the data and su	pporting analysis for the proj	ect.			
1 4 4	SUBJECT TERMS			15. NUMBER OF PAGES		

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20. LIMITATION OF ABSTRACT

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16. PRICE CODE

19. SECURITY CLASSIFICATION

Unclassified

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GRAPHIC REPRESENTATIONS

OF

CONCENTRATIONS OF SELECTED COMPOUNDS OF CONCERN BEFORE AND AFTER BIOVENTING FOR 1 YEAR

CROSS SECTIONS

PLAN VIEW SLICES

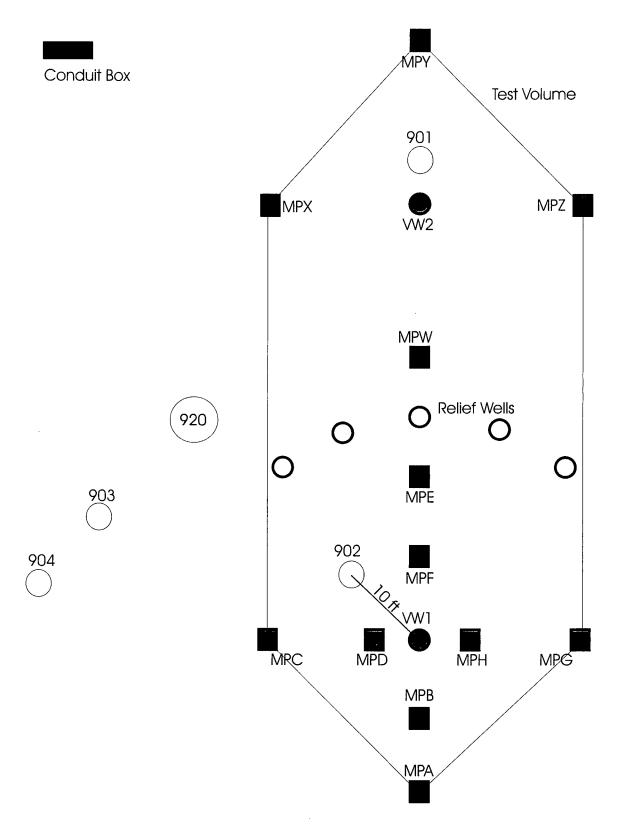
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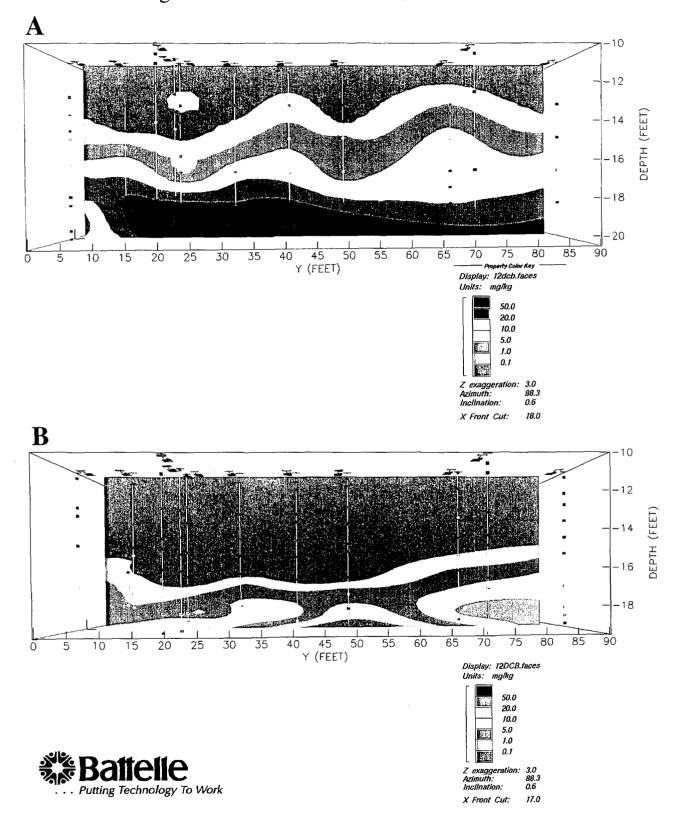
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CROSS SECTIONS

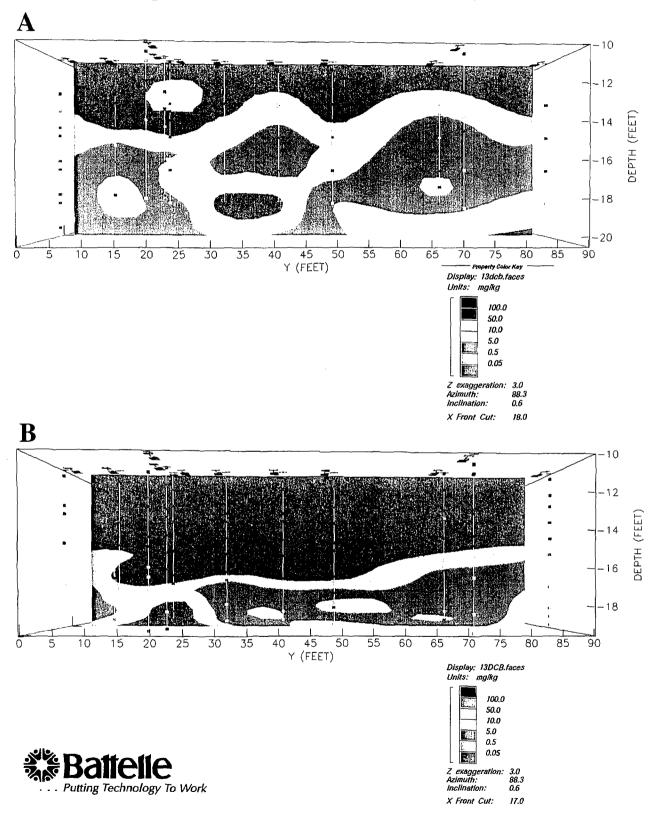




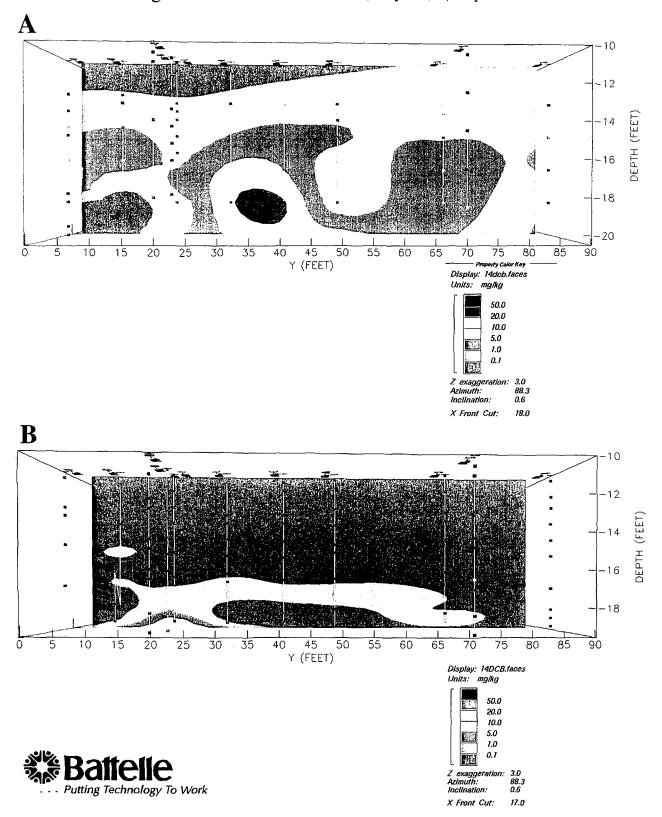
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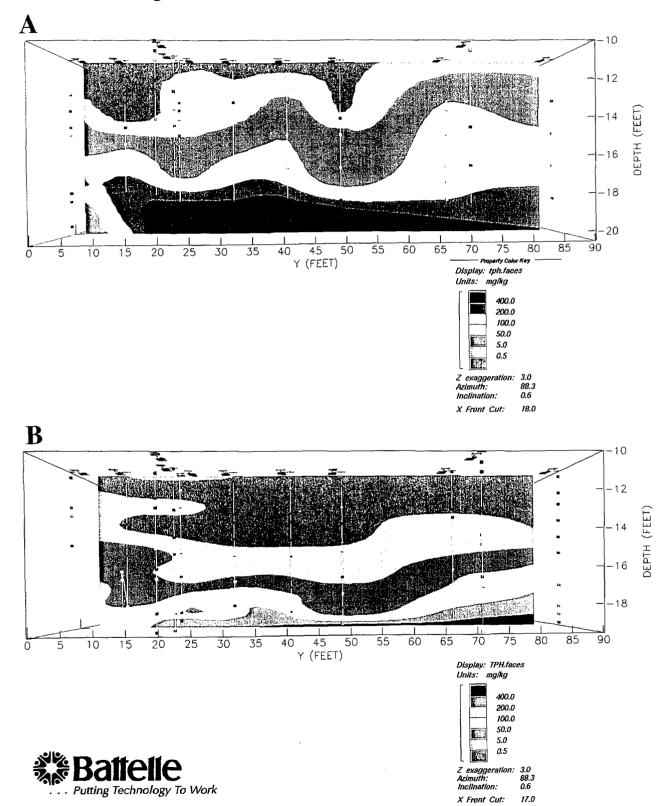
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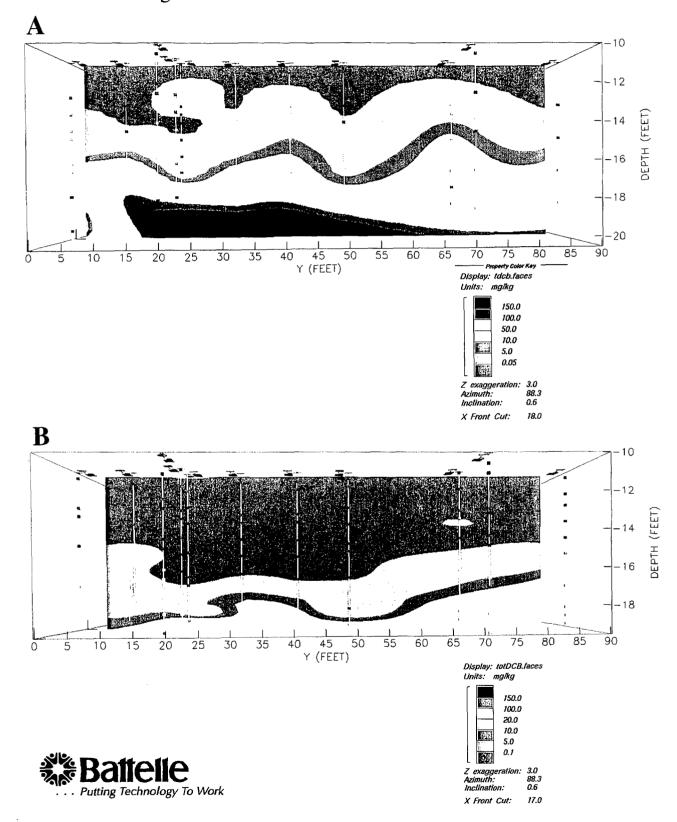
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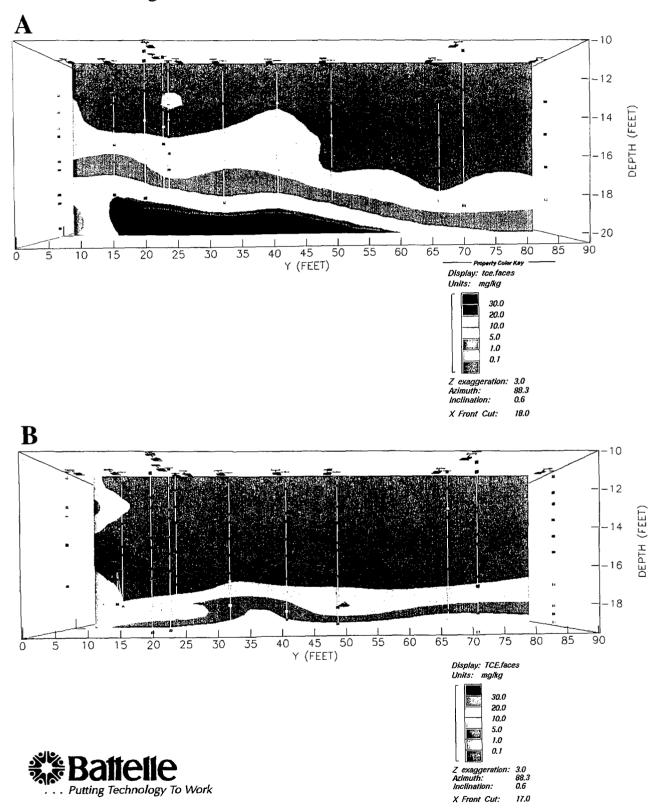
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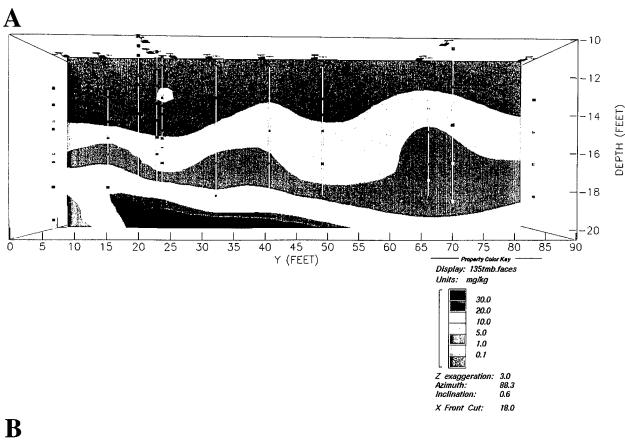
Cross Sectional View Slices through 3D Block Diagrams of Total DCB along Wells MP-A - MP-Y A) July '97, B) July '98

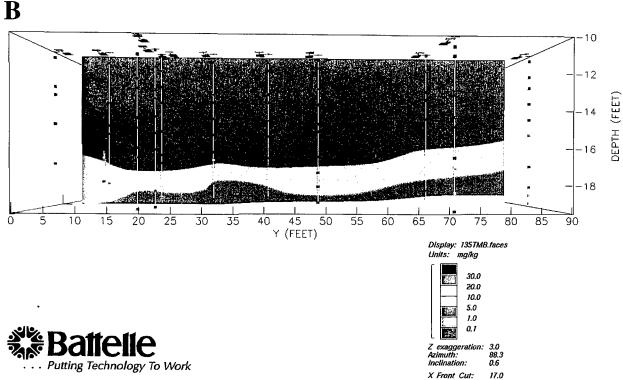


Cross Sectional View Slices through 3D Block Diagrams of TCE along Wells MP-A - MP-Y A) July '97, B) July '98



Cross Sectional View Slices through 3D Block Diagrams of 1,3,5-TMB along Wells MP-A - MP-Y A) July '97, B) July '98





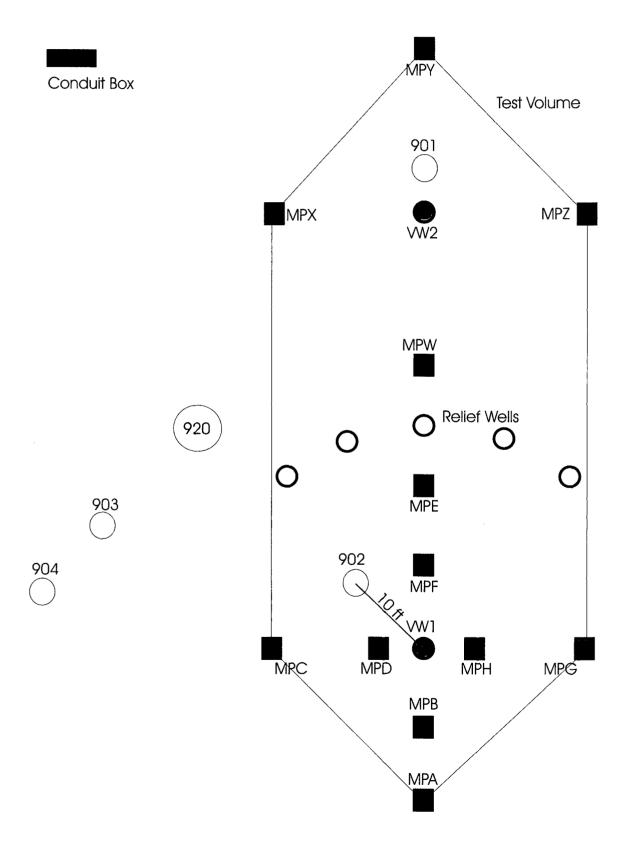
GRAPHIC REPRESENTATIONS

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CONCENTRATIONS OF SELECTED COMPOUNDS OF CONCERN BEFORE AND AFTER BIOVENTING FOR 1 YEAR

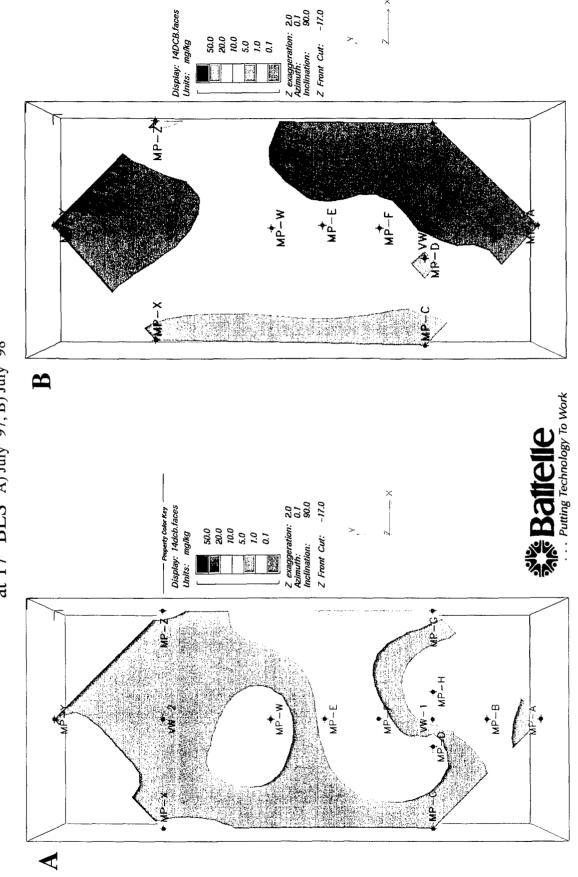
PLAN VIEW SLICES



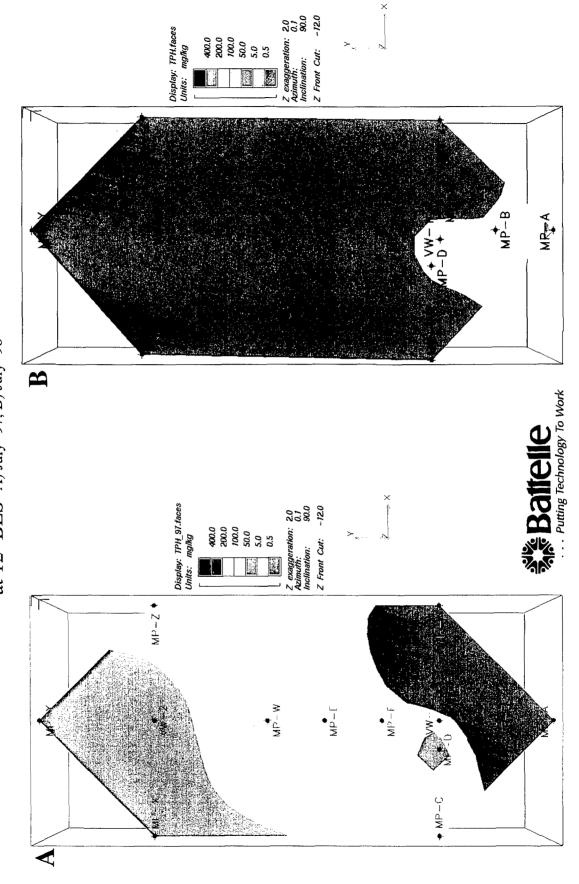


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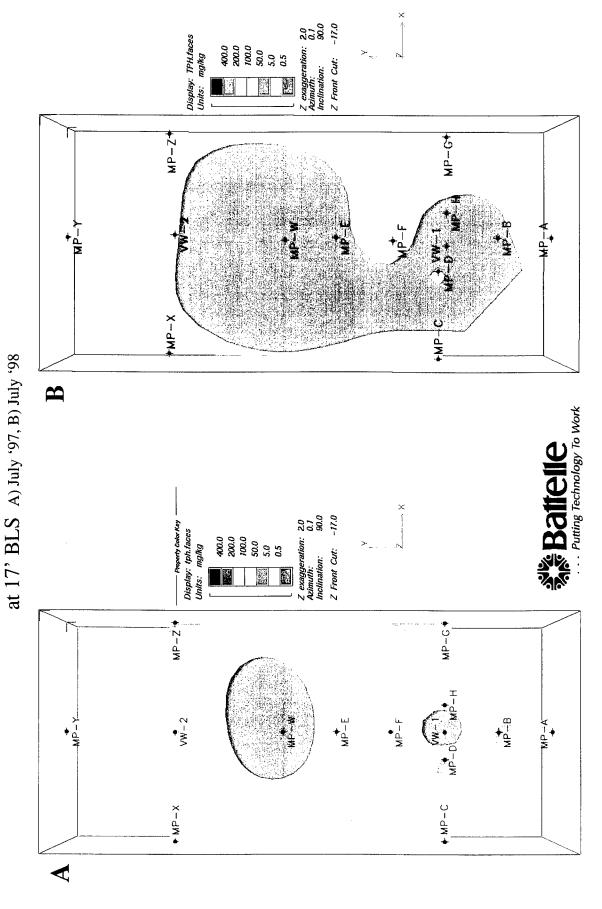
PlanView Slices through 3D Block Diagrams of 1,4-DCB at 17' BLS A) July '97, B) July '98



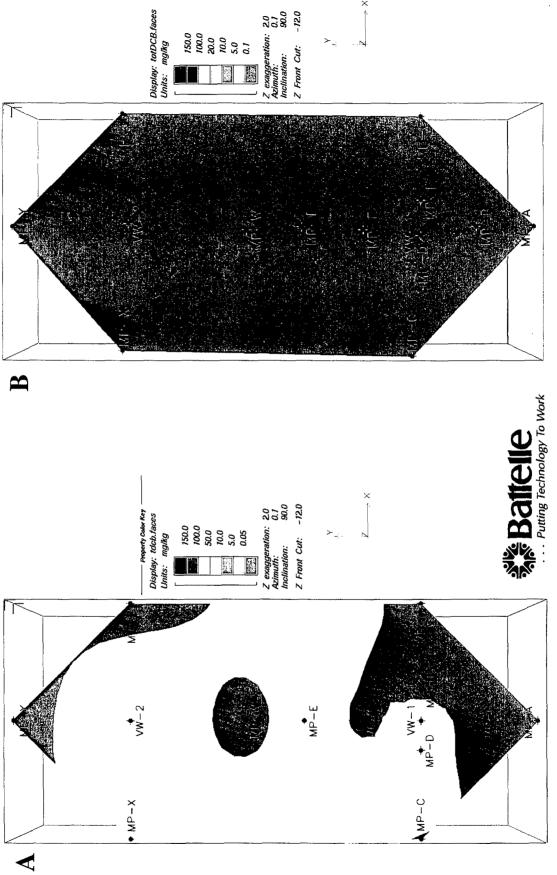
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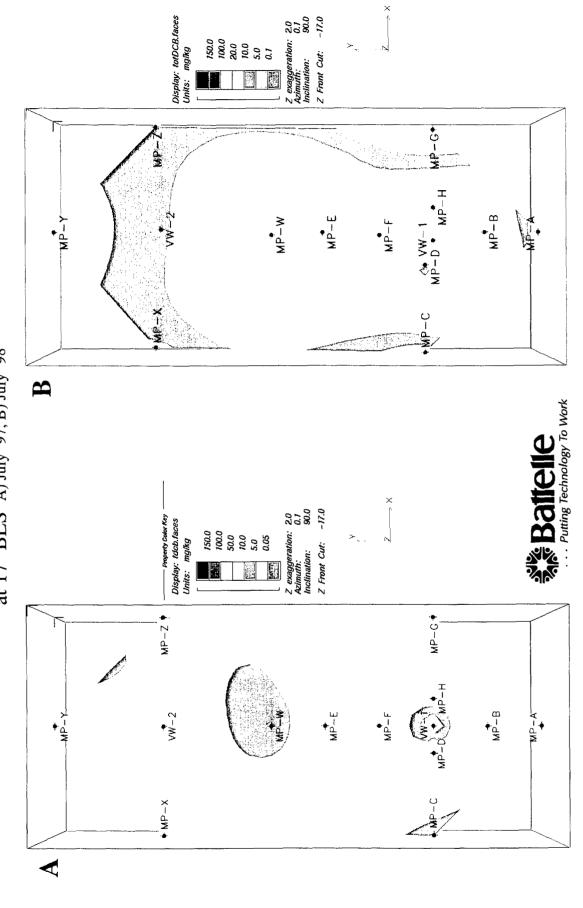
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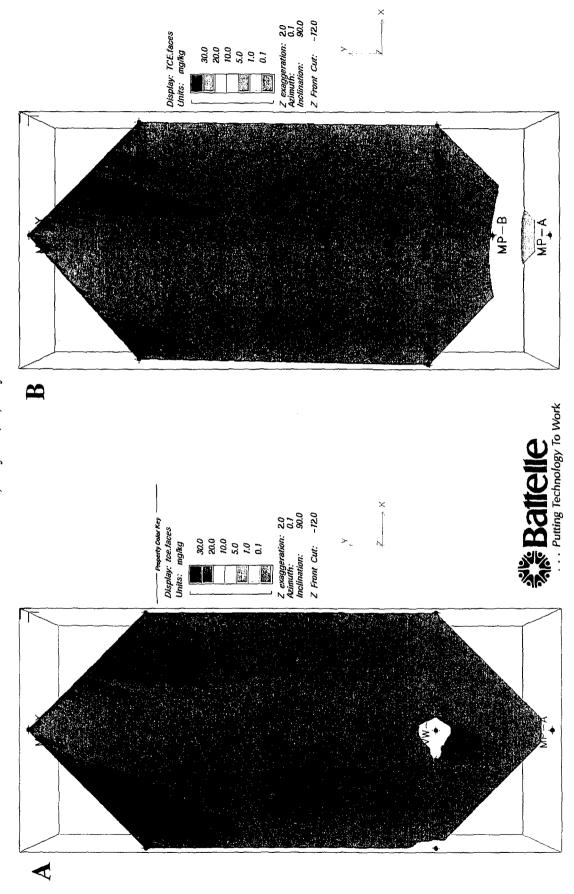
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PlanView Slices through 3D Block Diagrams of Total DCB at 17' BLS A) July '97, B) July '98



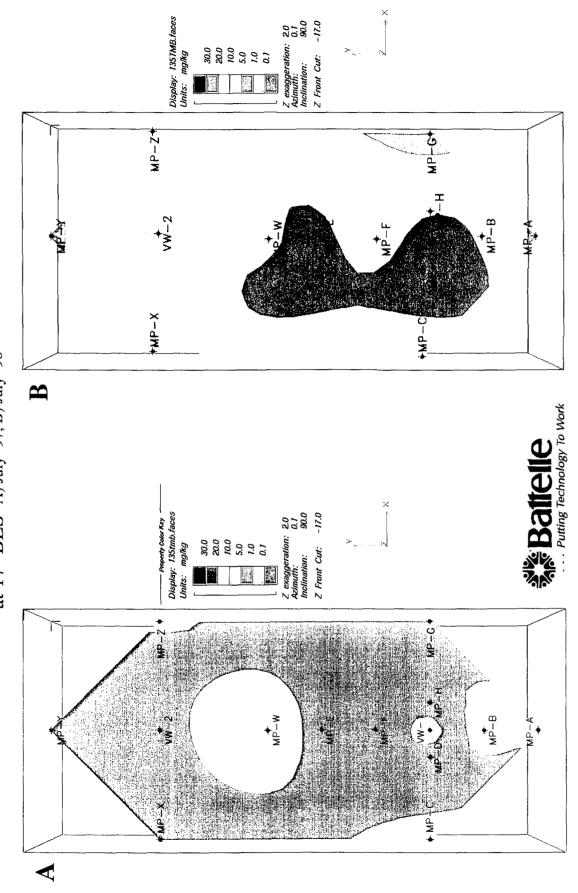
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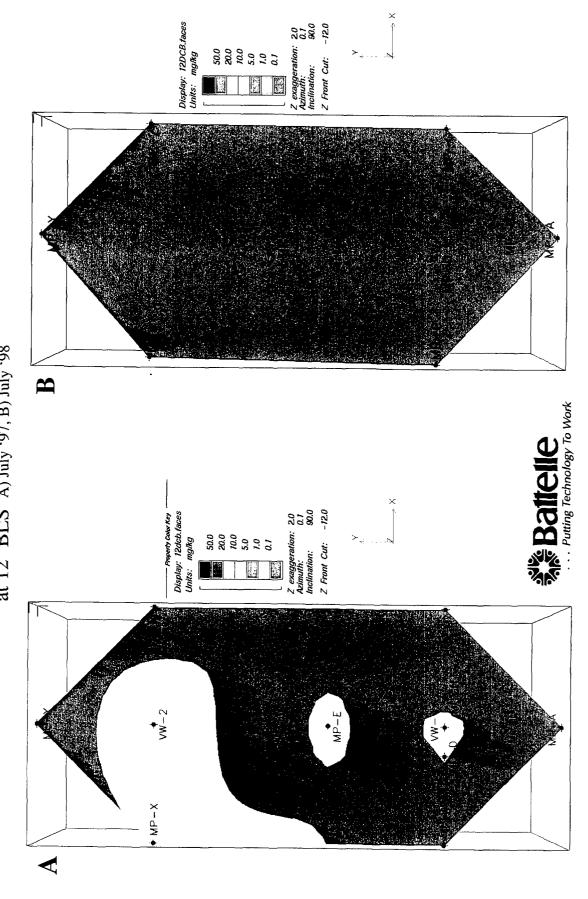
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Z exaggeration: 2.0 Azimuth: 0.1 Inclination: 90.0 Z Front Cut: -12.0 30.0 20.0 10.0 5.0 1.0 PlanView Slices through 3D Block Diagrams of 1,3,5-TMB at 12' BLS A) July '97, B) July '98 **m** Baffelle ... Putting Technology To Work Z exaggeration: 2.0 Azimuth: 0.1 Inclination: 90.0 Z Front Cut: -12.0

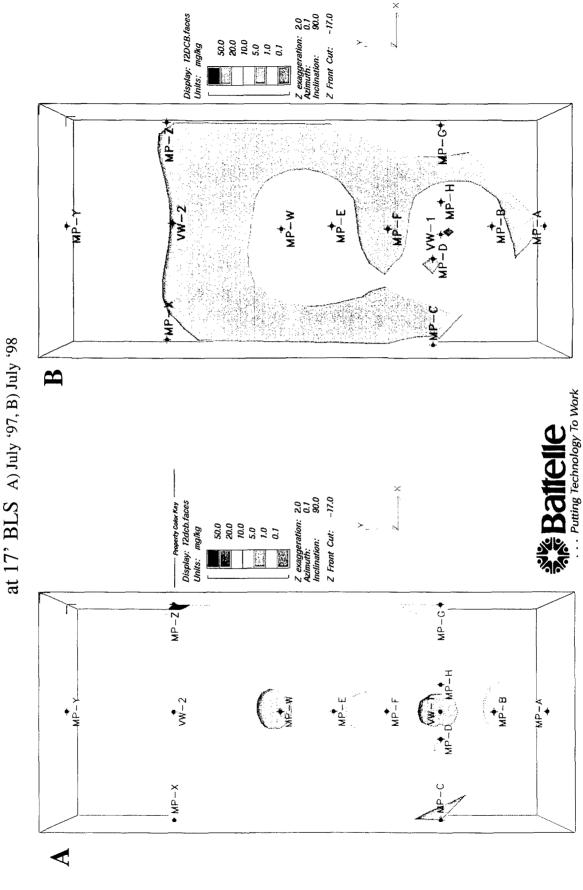
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PlanView Slices through 3D Block Diagrams of 1,2-DCB at 12' BLS A) July '97, B) July '98



PlanView Slices through 3D Block Diagrams of 1,2-DCB



PlanView Slices through 3D Block Diagrams of 1,3-DCB at 12' BLS A) July '97, B) July '98 M Baffelle ... Putting Technology To Work Z exaggeration: 2.0 Azimuth: 0.1 Inclination: 90.0 Z Front Cut: -12.0 100.0 50.0 10.0 5.0 0.5 0.05 MP-E

Z exaggeration: 2.0 Azimuth: 0.1 Inclination: 90.0 Z Front Cut: -17.0 Display: 13DCB.faces Units: mglka MP-W PlanView Slices through 3D Block Diagrams of 1,3-DCB at 17' BLS A) July '97, B) July '98 **m** Z exaggeration: 20 Azimuth: 0.1 Inclination: 90.0 Z Front Cut: -17.0 MP-G+

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October 1997

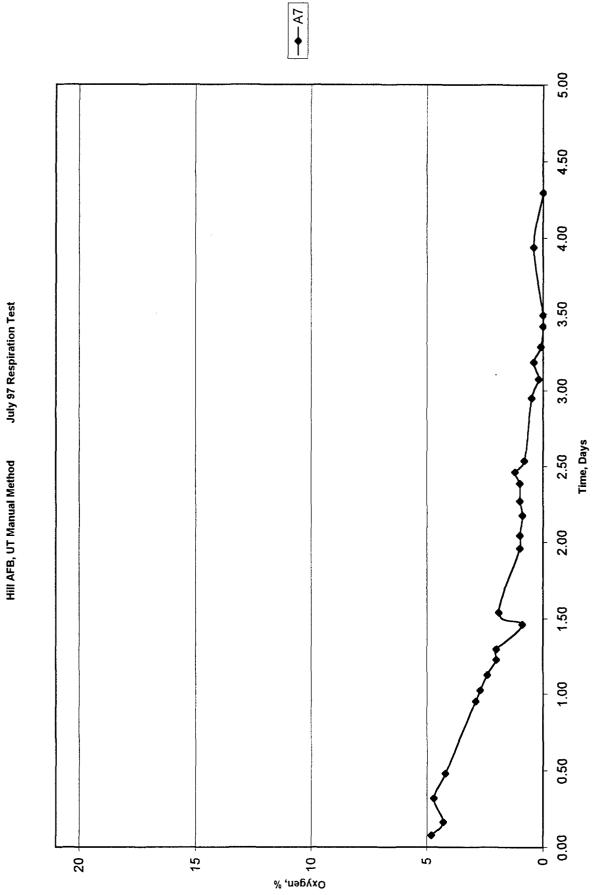
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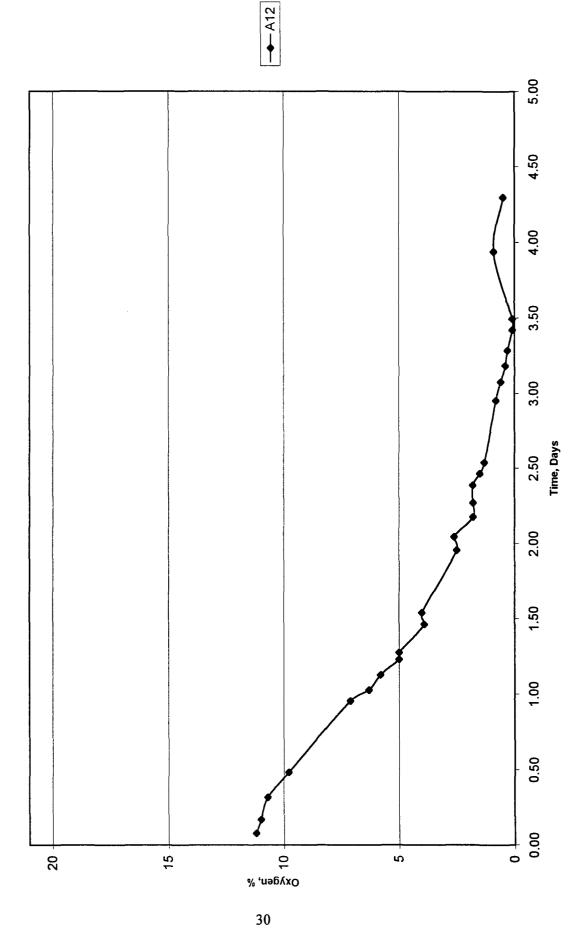
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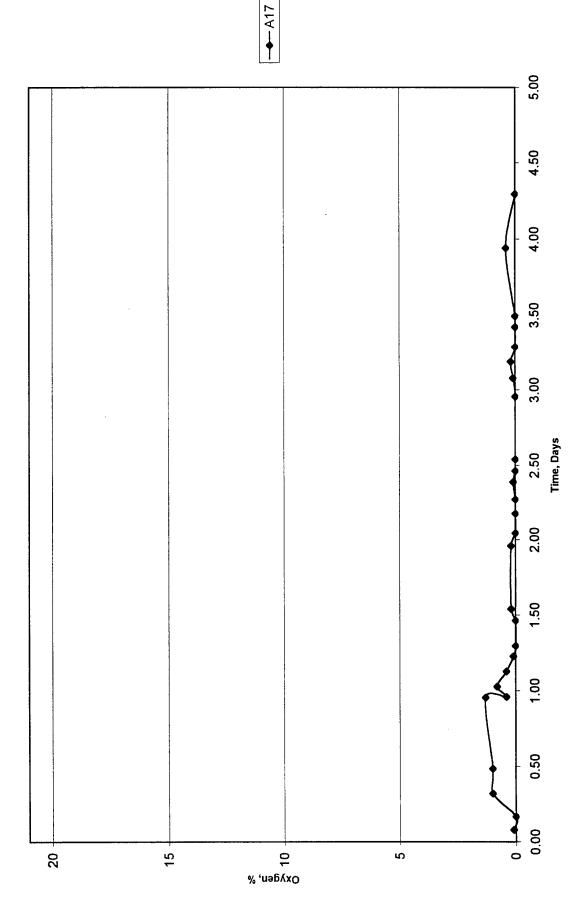
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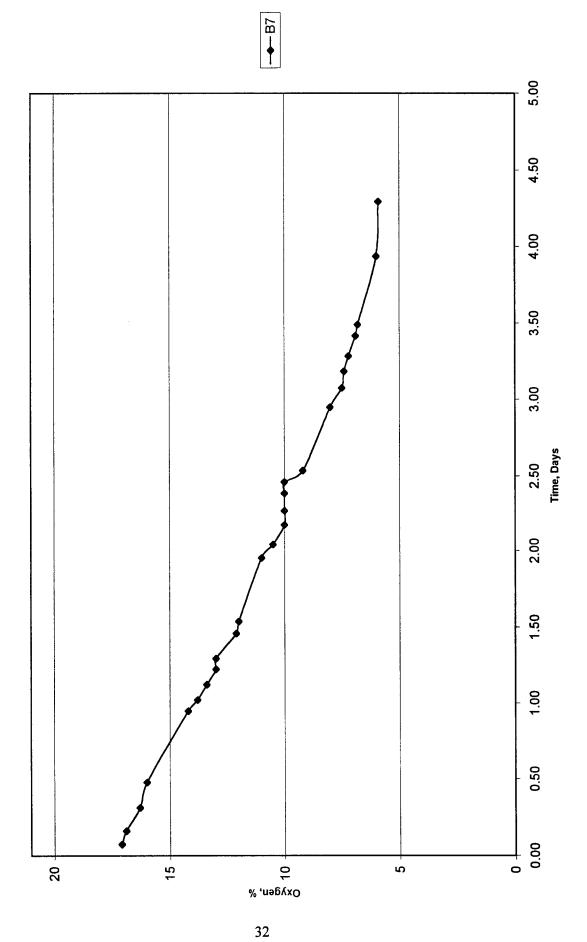




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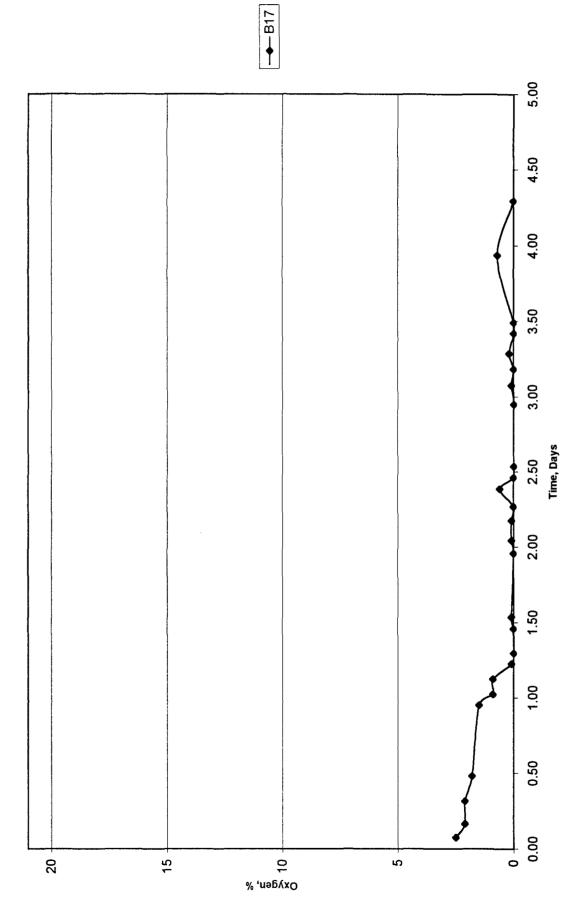




July 97 Respiration Test

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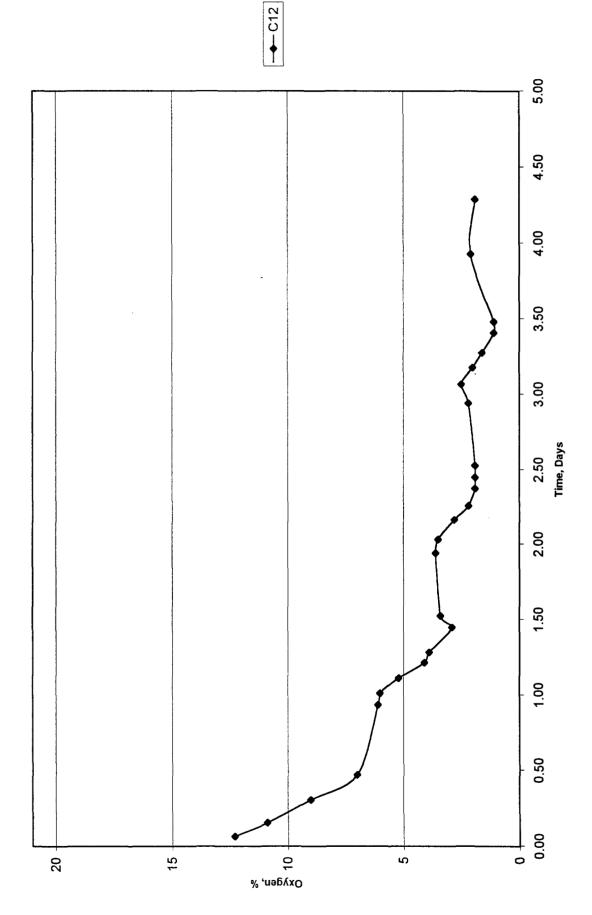




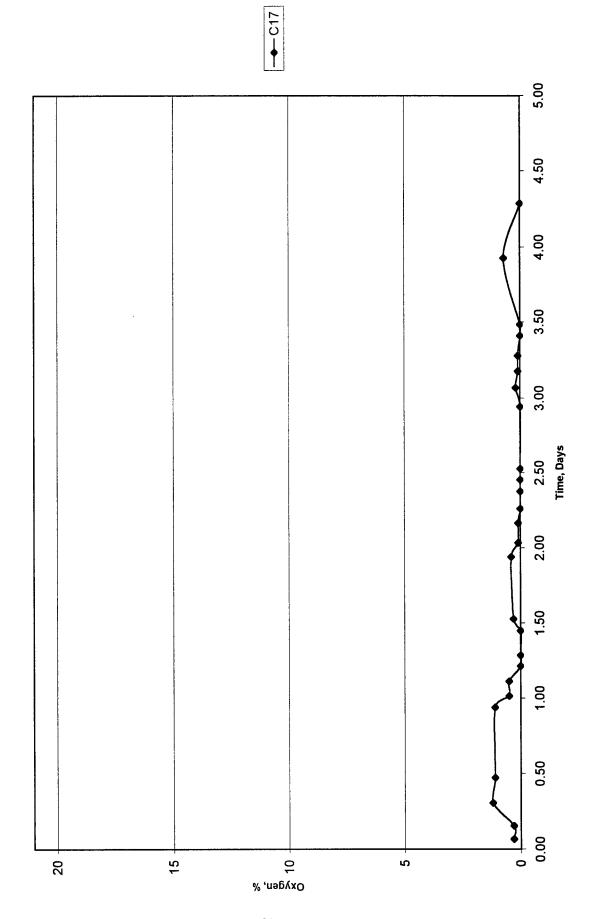
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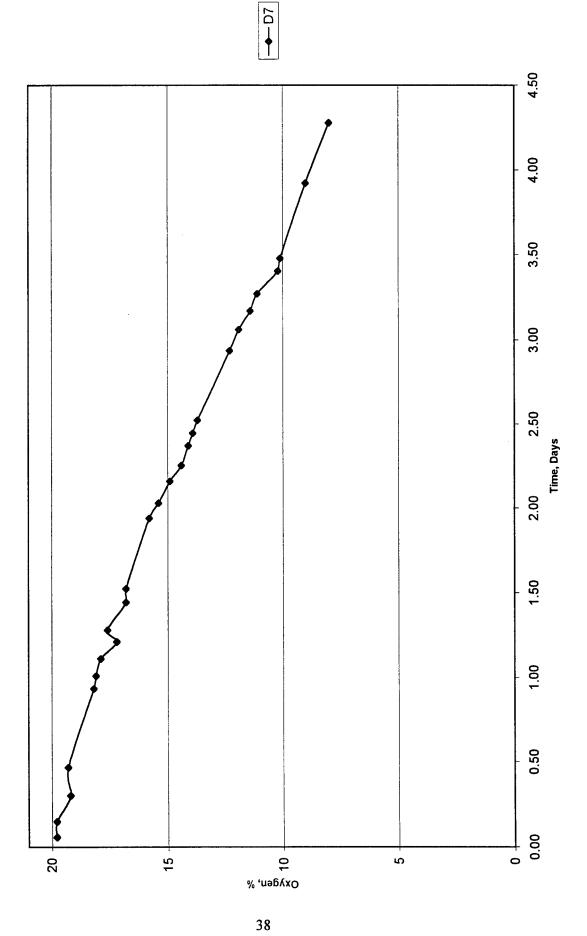
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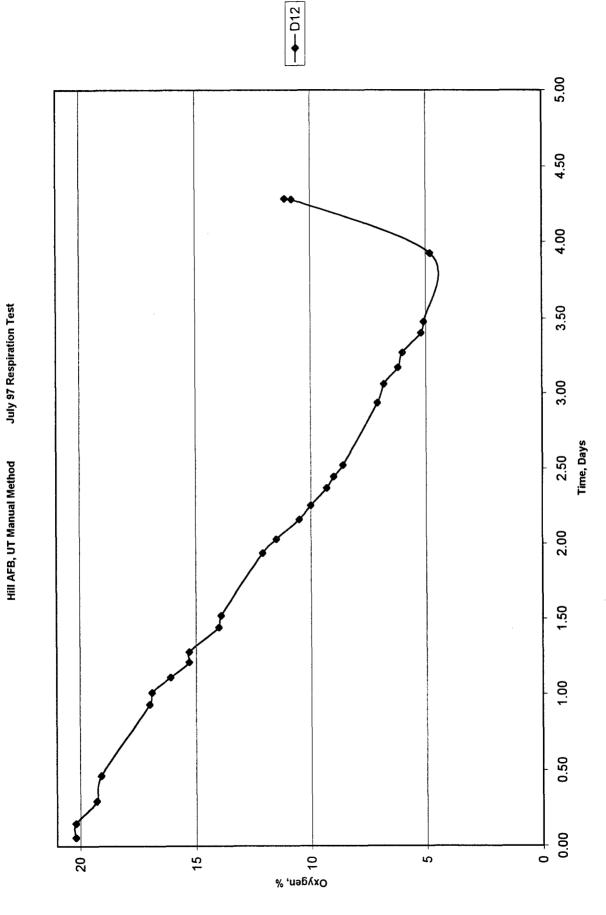


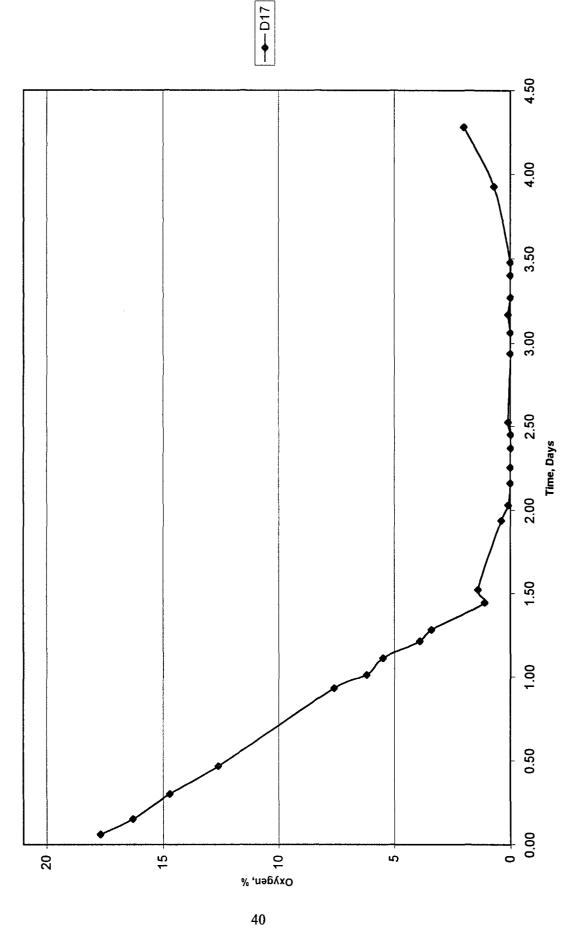


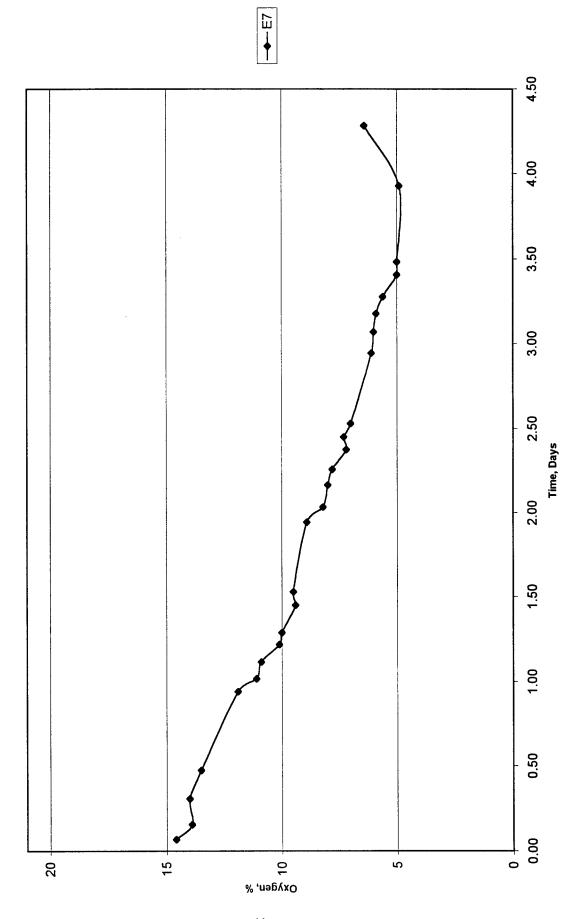
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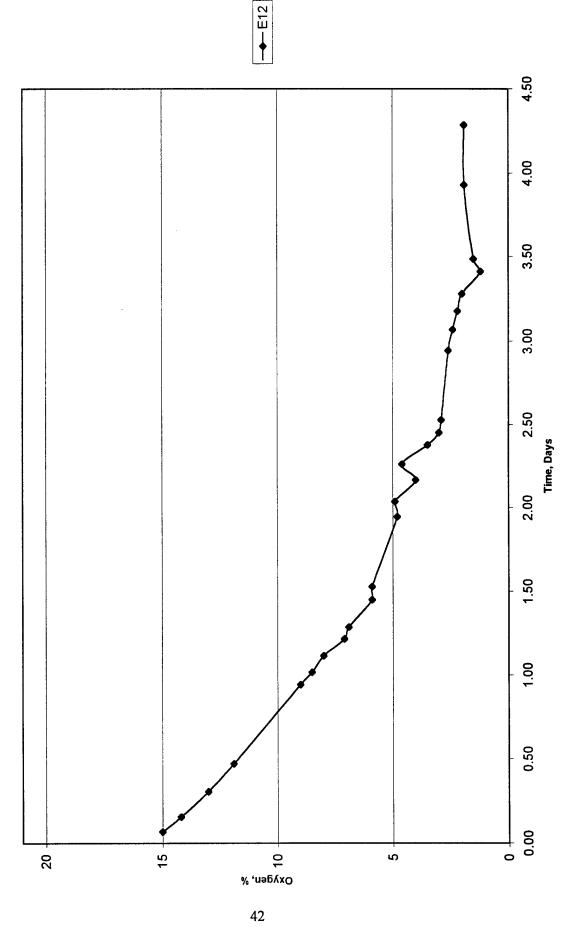


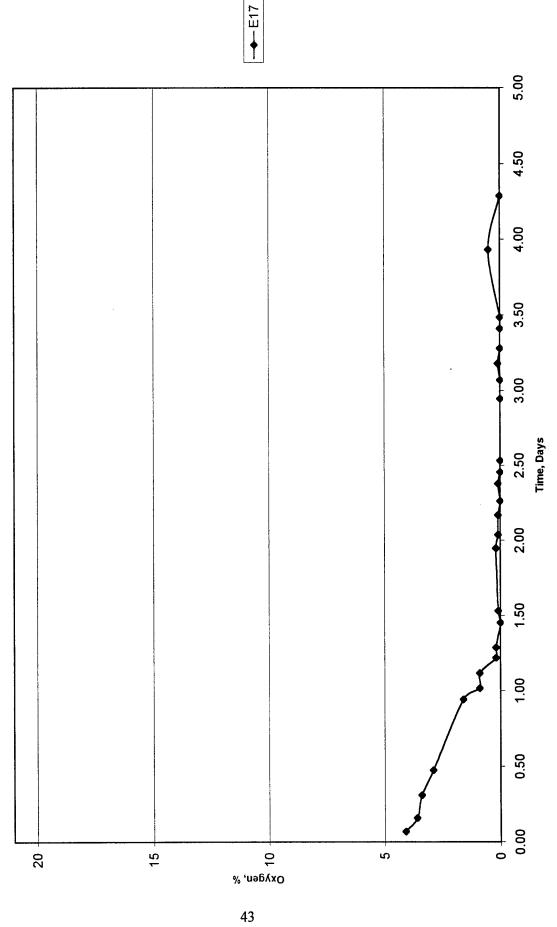




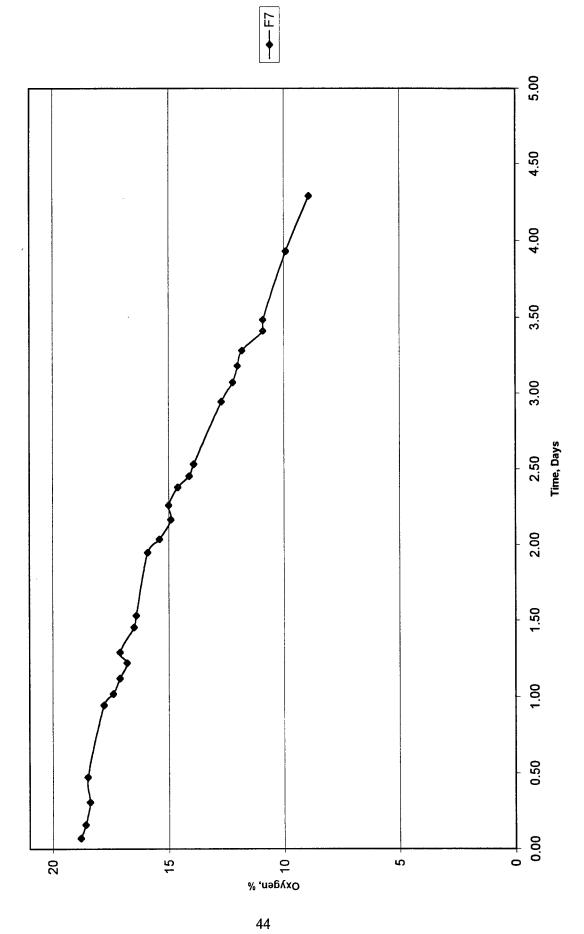


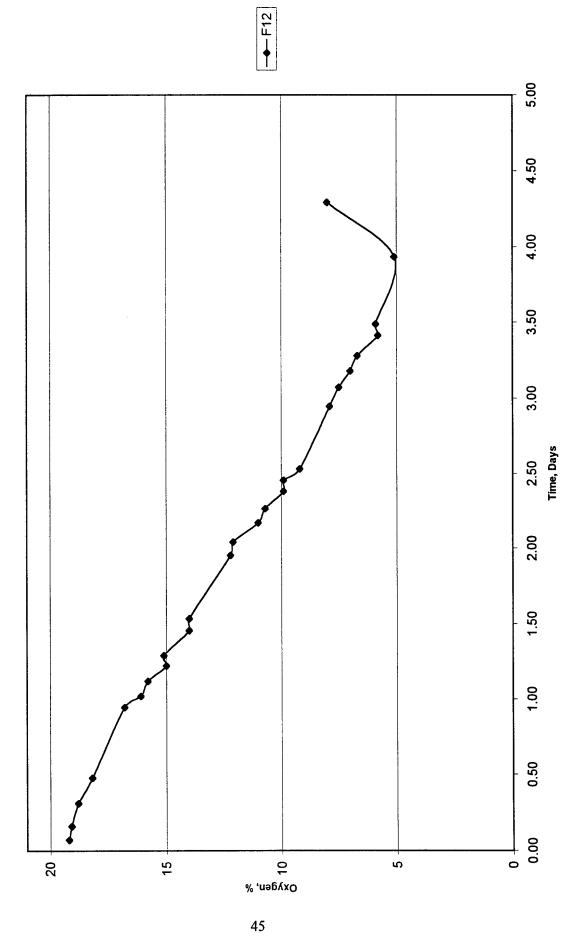


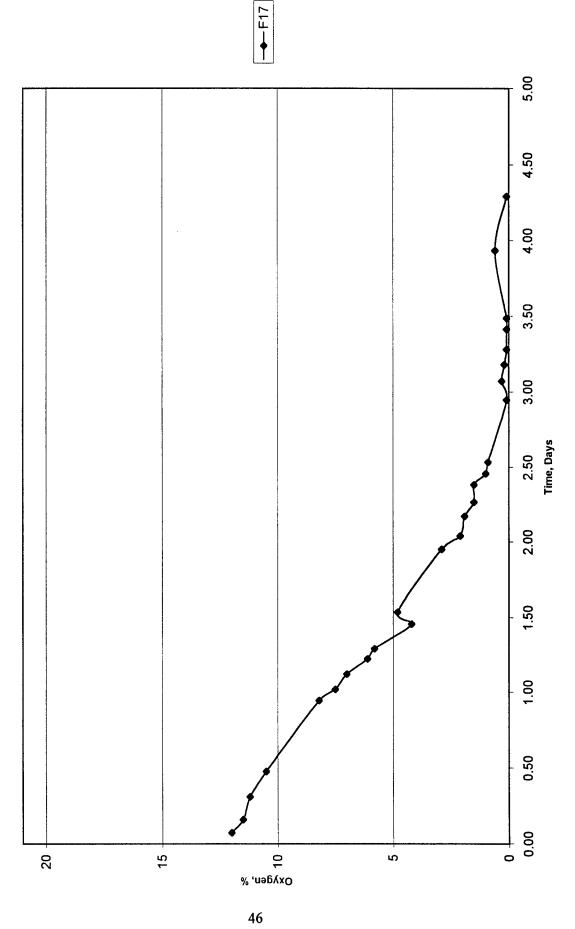




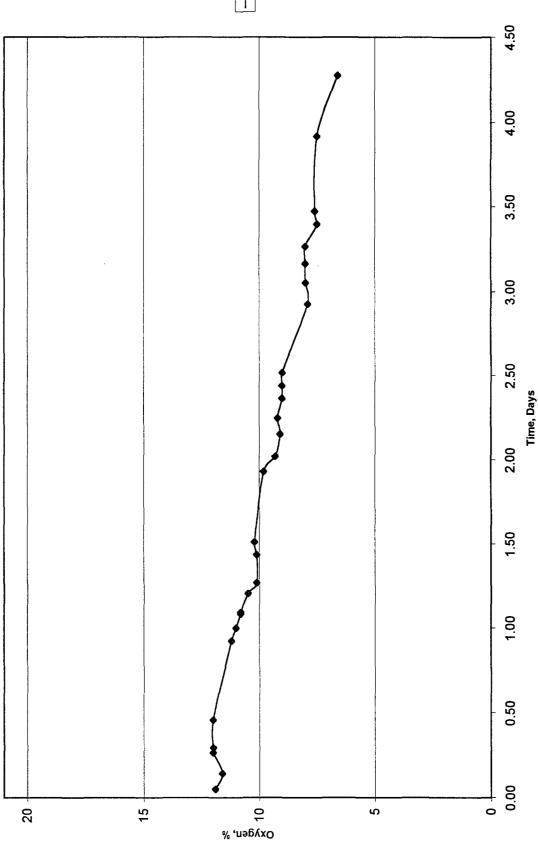


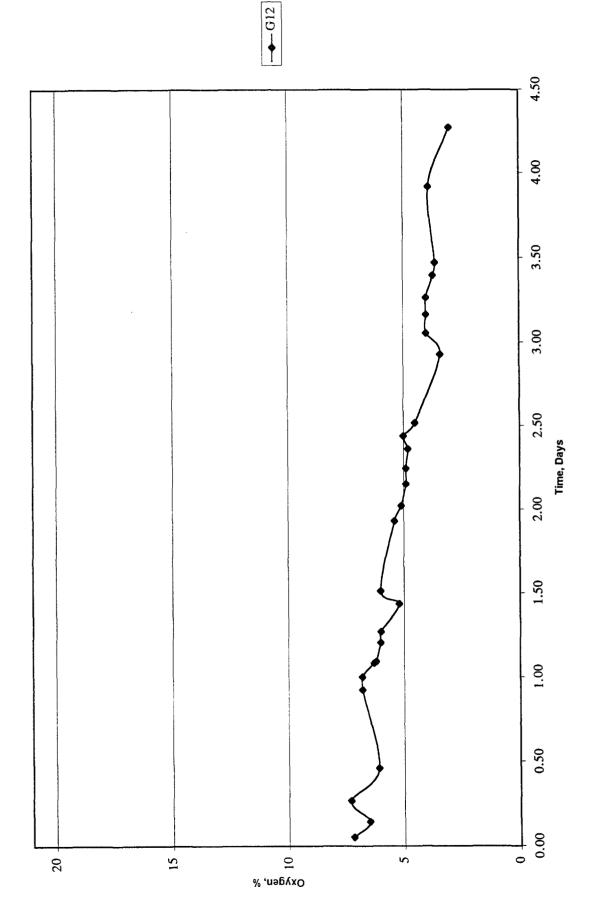






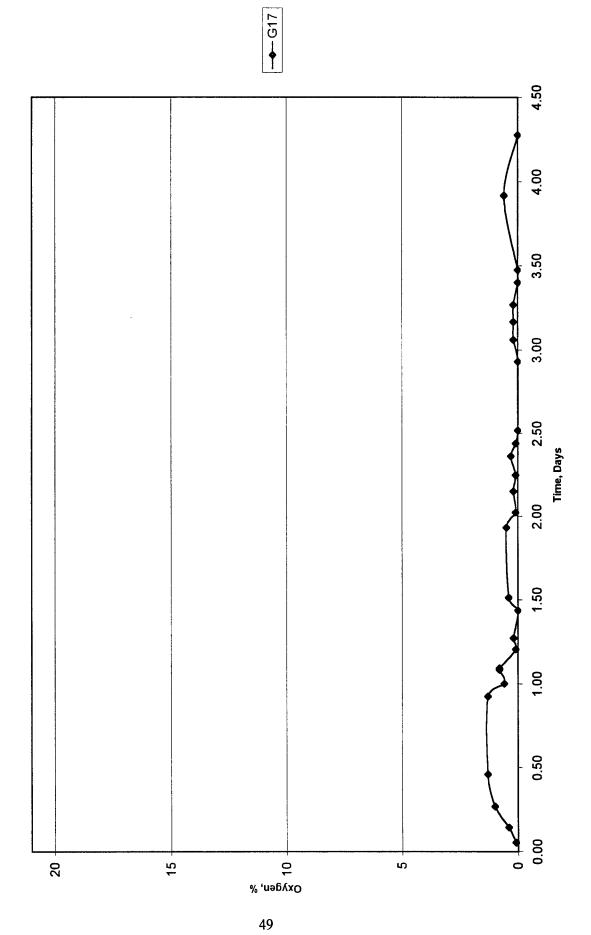


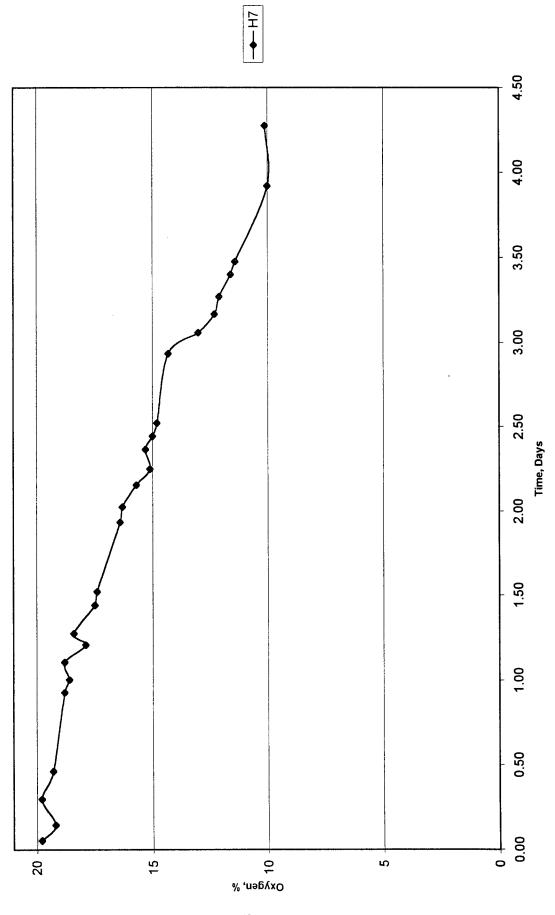


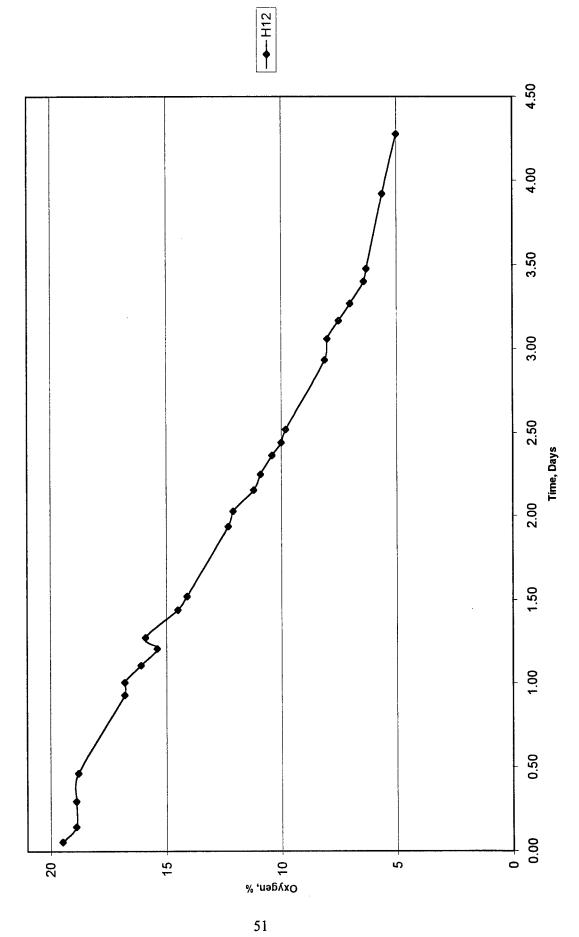


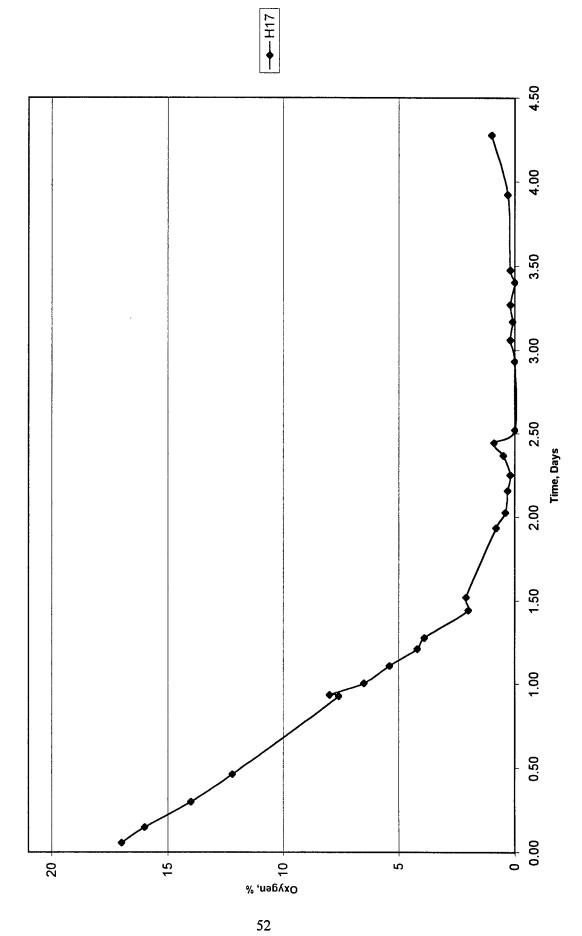
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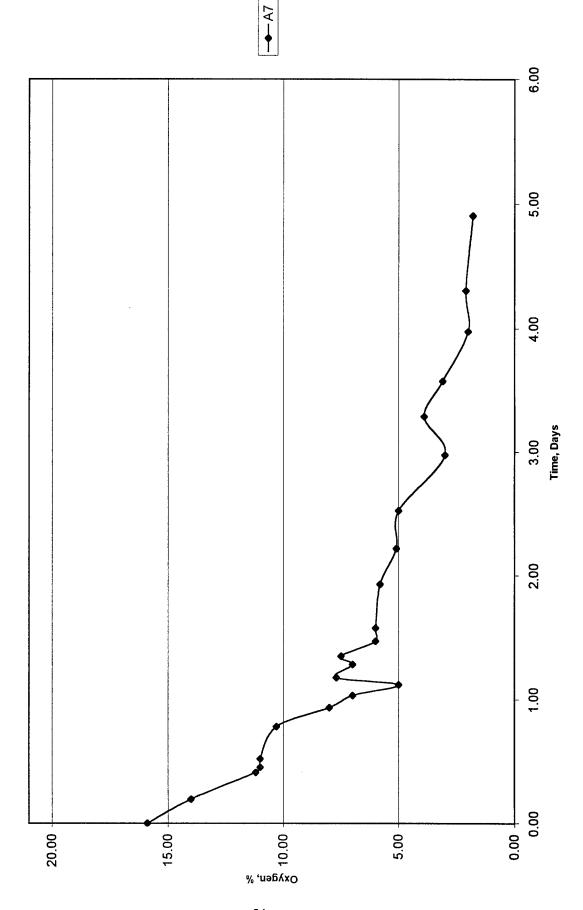






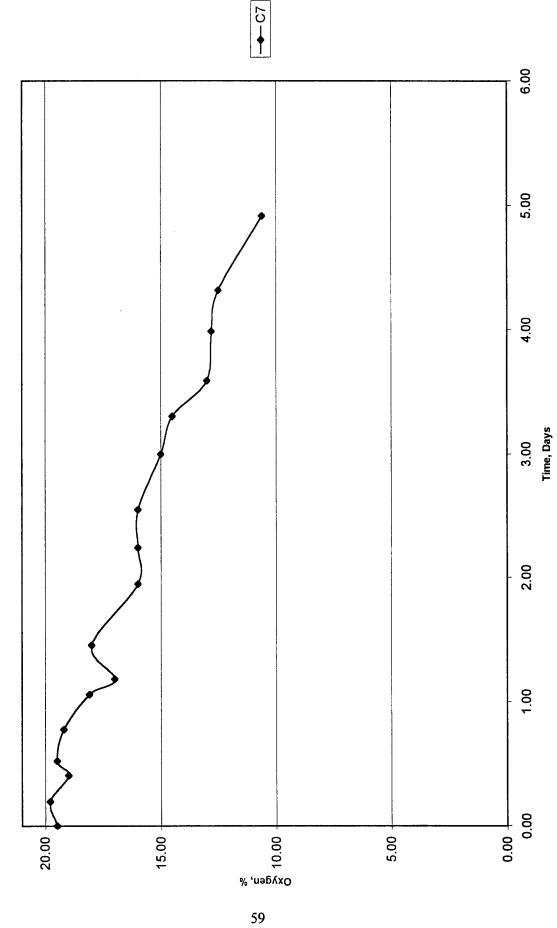
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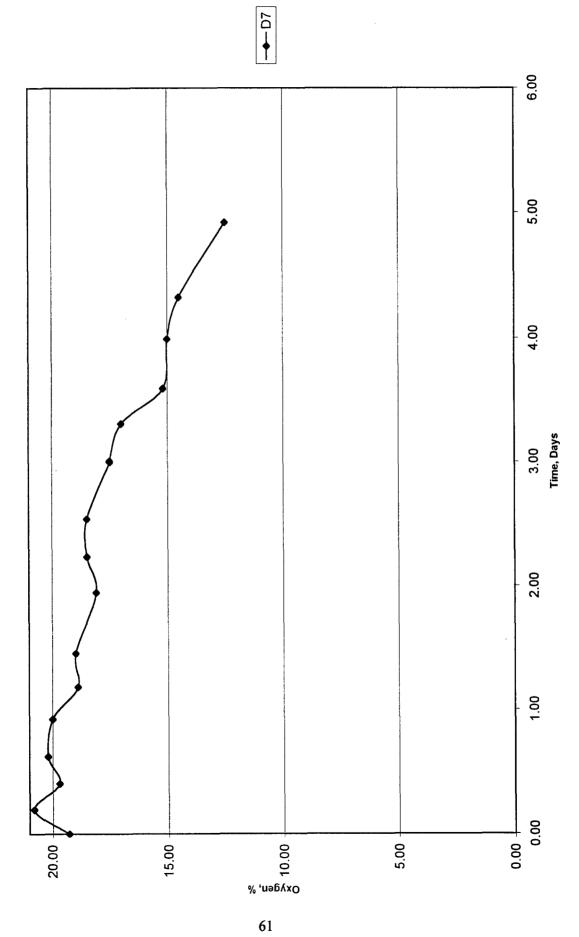
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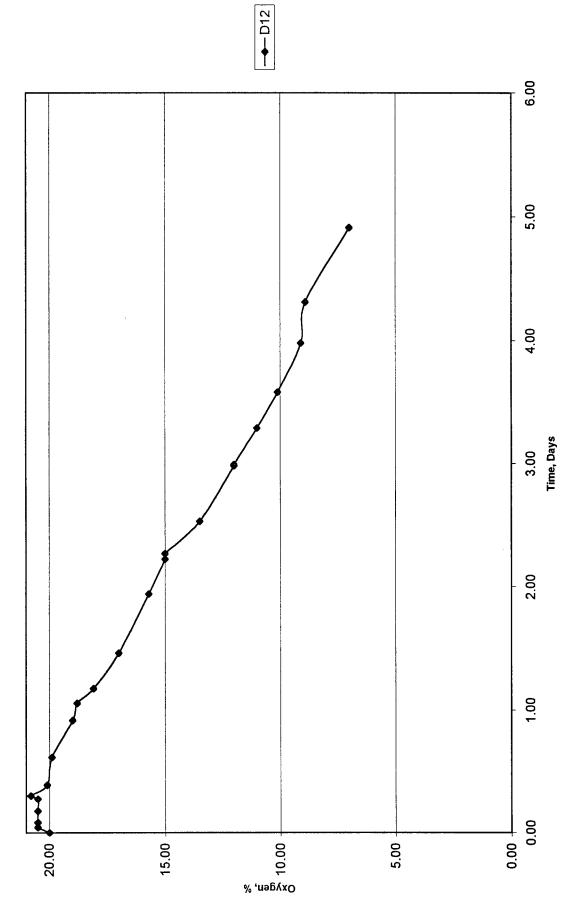


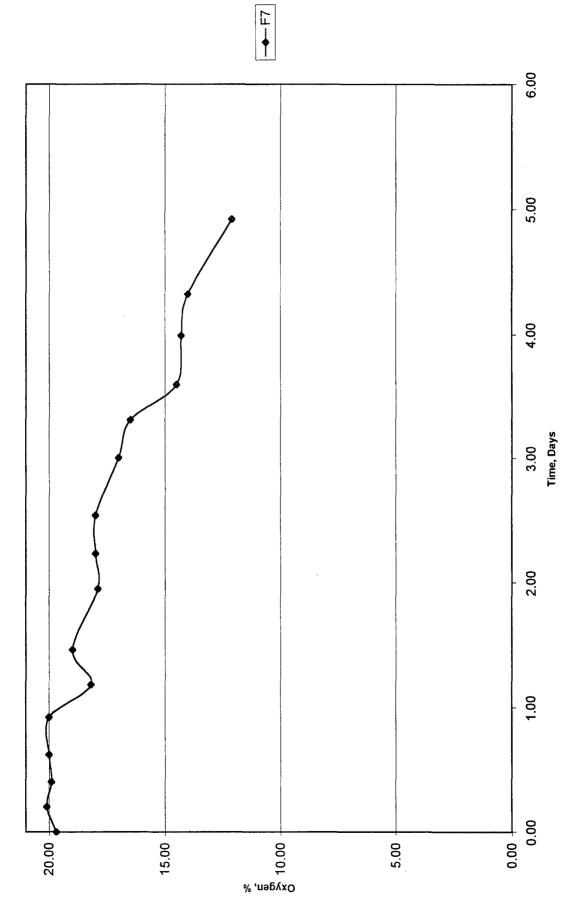
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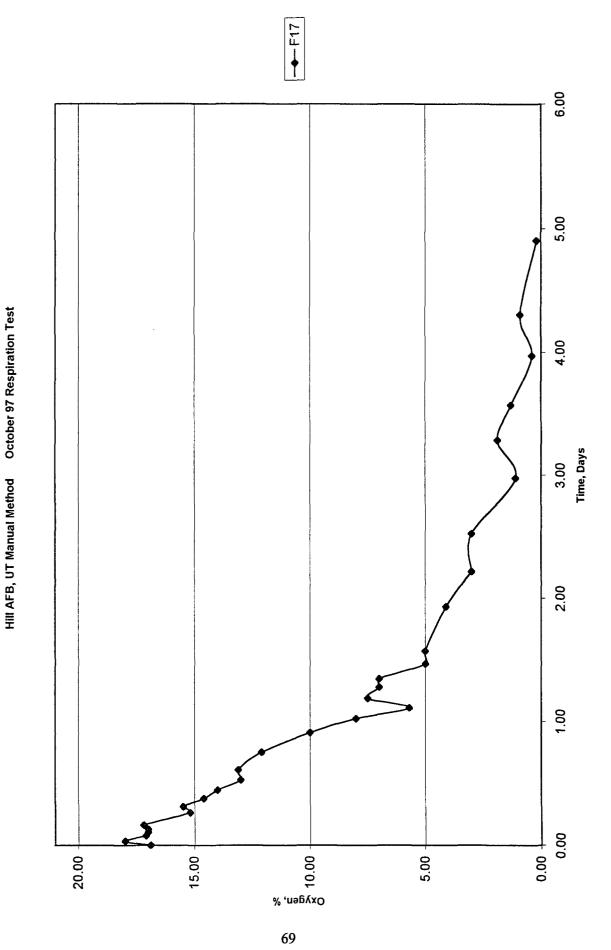
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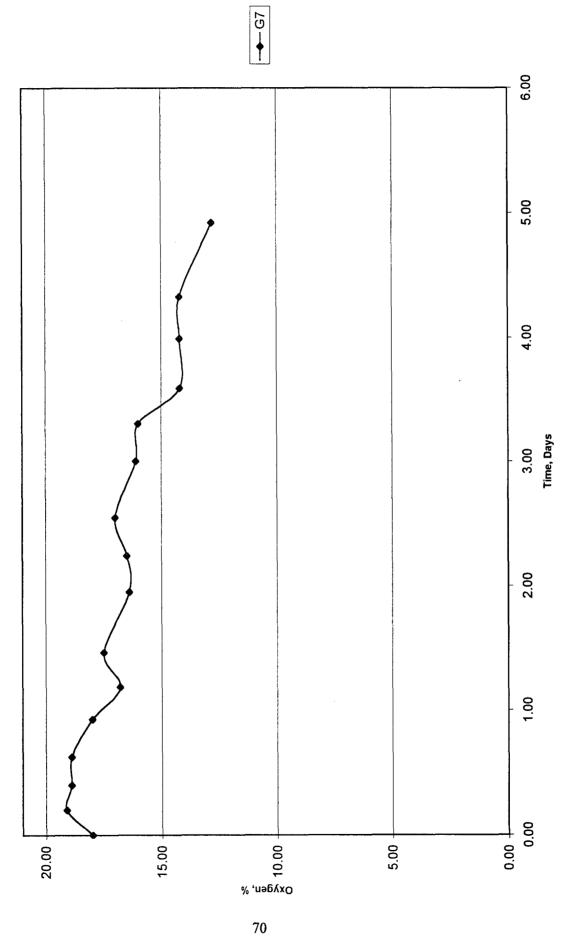












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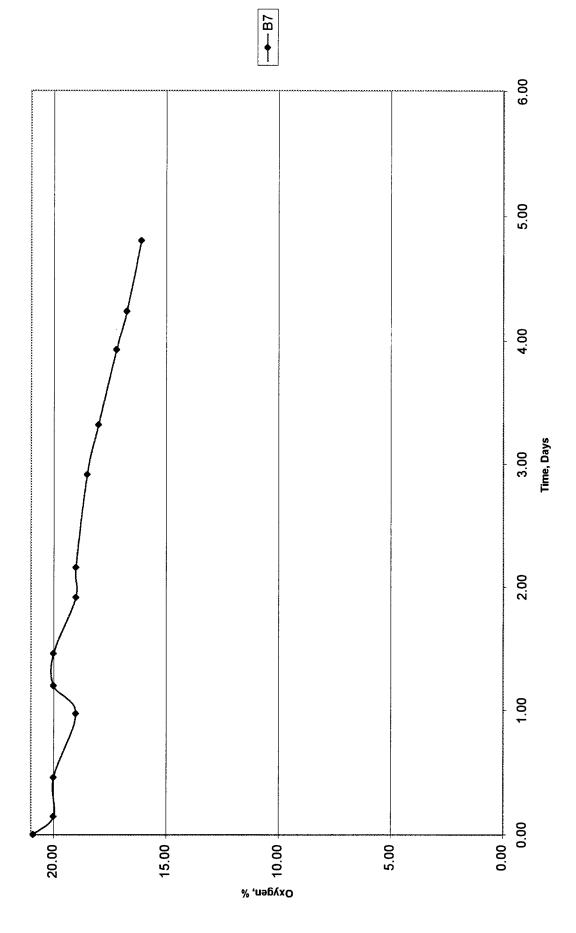
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January 1998

→ A7 6.00 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 0.00 20.00 Oxygen, % 15.00 5.00

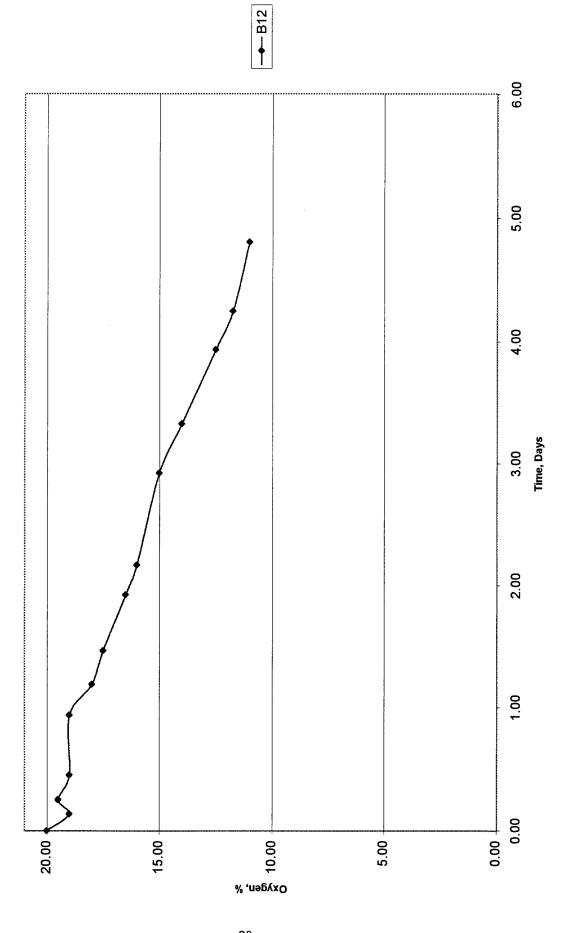
--- A12 6.00 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 00.0 0xygen, % 20.00 15.00 5.00

-+-A17 2.50 2.00 1.50 Time, Days 1.00 0.50 0.00 0.00 20.00 15.00 Oxygen, % 5.00



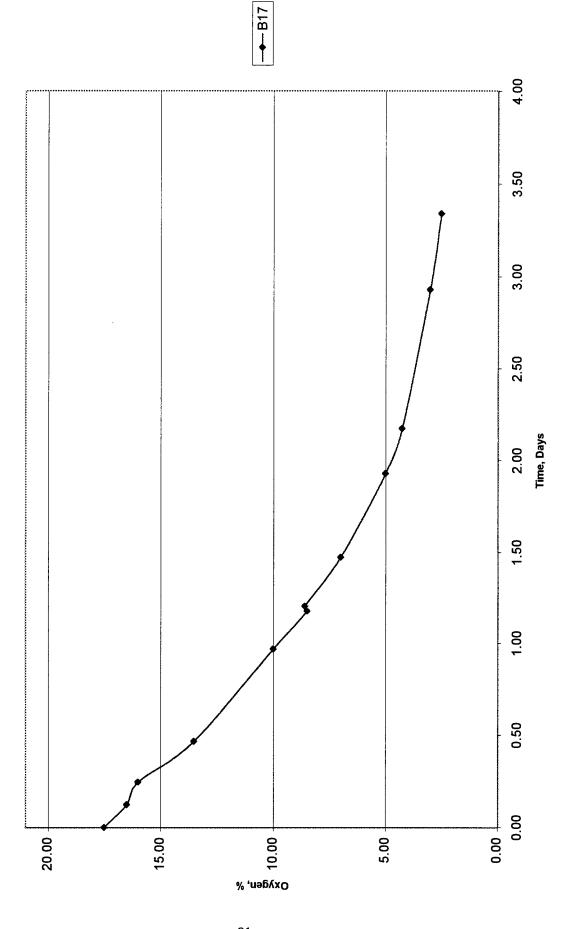
Hill AFB, UT Manual Method

January 1998 Respiration Test



Hill AFB, UT Manual Method

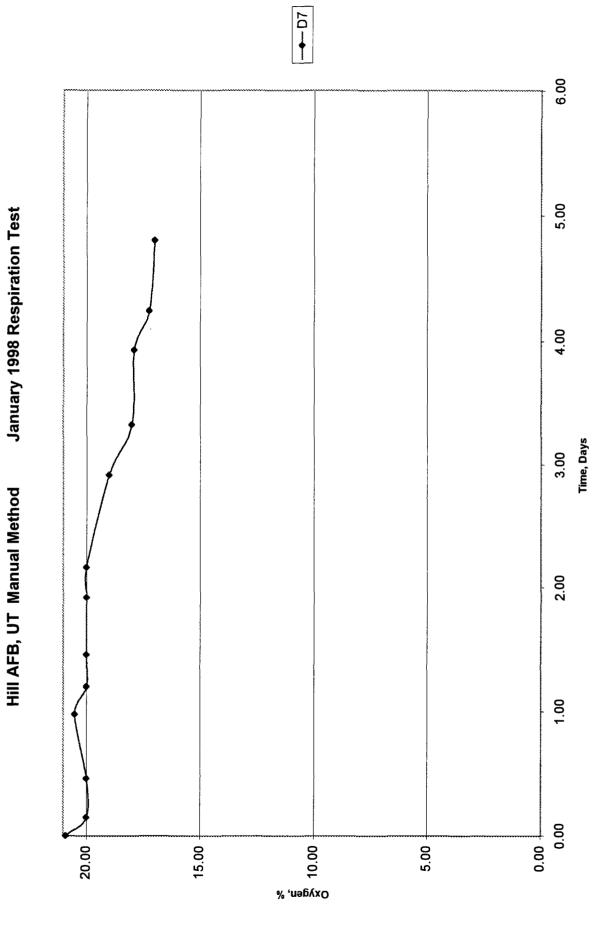
January 1998 Respiration Test

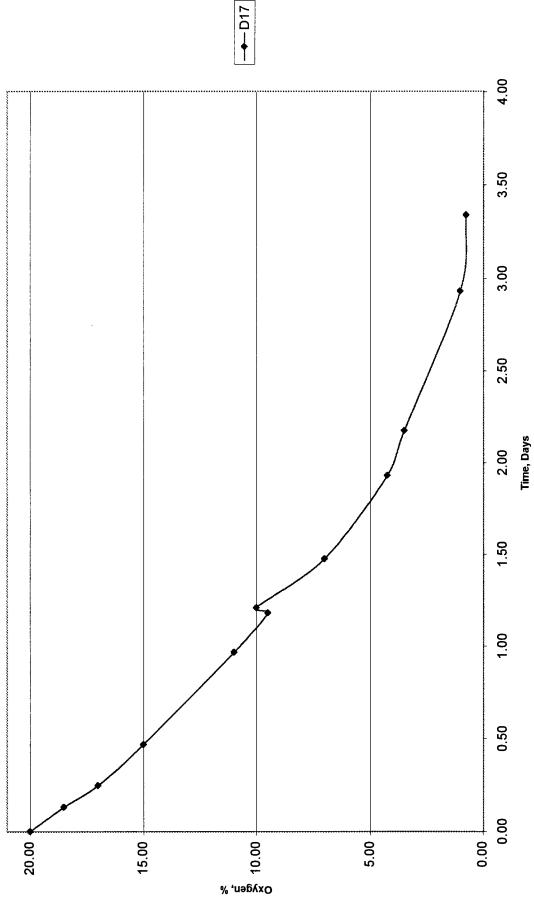


___C7 6.00 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 00.0 20.00 15.00 5.00

→-C12 00.9 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 00.0 Oxygen, % 10.00 20.00 15.00 5.00

-- C17 2.50 2.00 1.50 Time, Days 1.00 0.50 0.00 20.00 15.00 0xygen, % 5.00

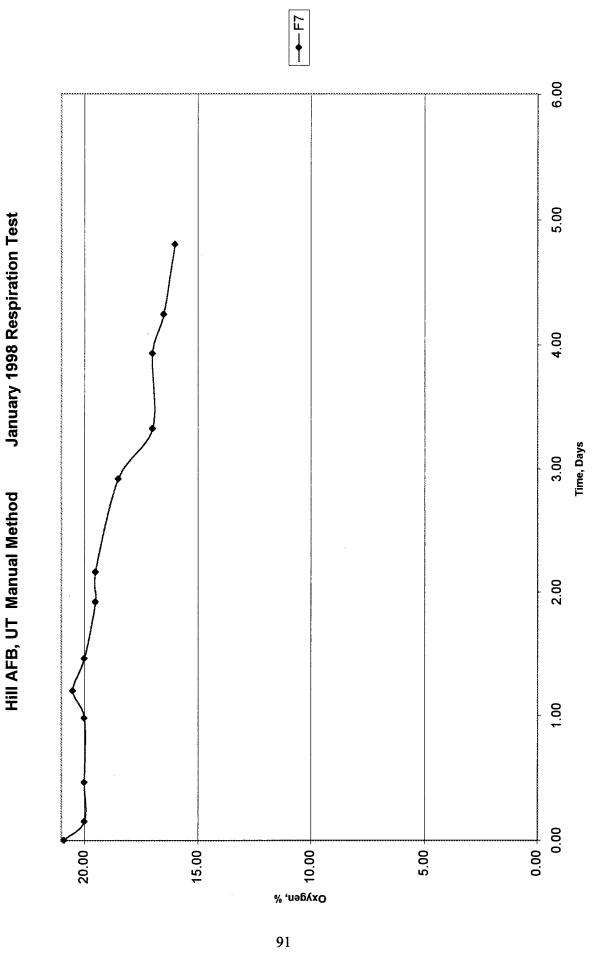


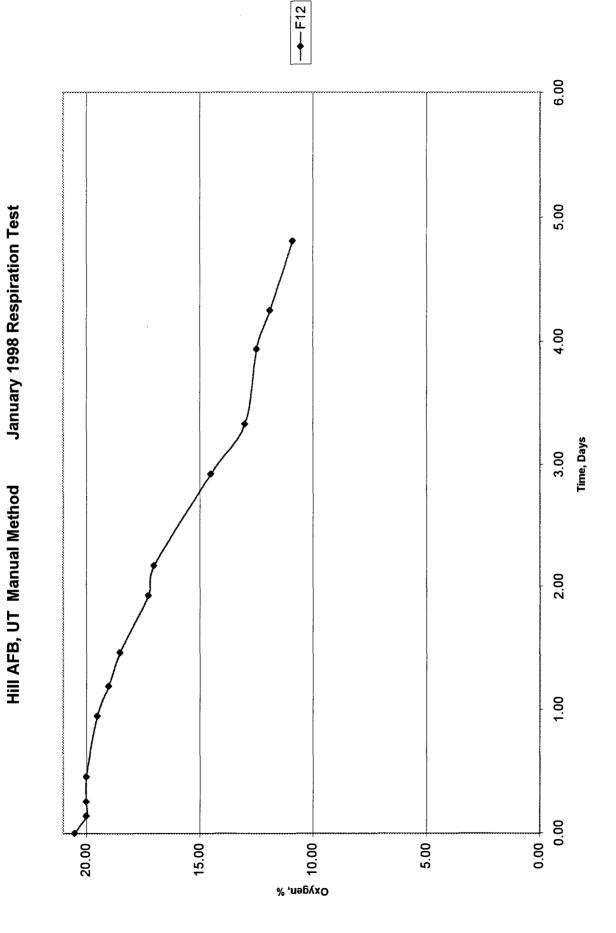


→-E7 6.00 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 0.00 0xygen, % 0.0 15.00 5.00 20.00

→-E12 6.00 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 0.00 % ,nagyxO 5 .0 .0 20.00 15.00 5.00

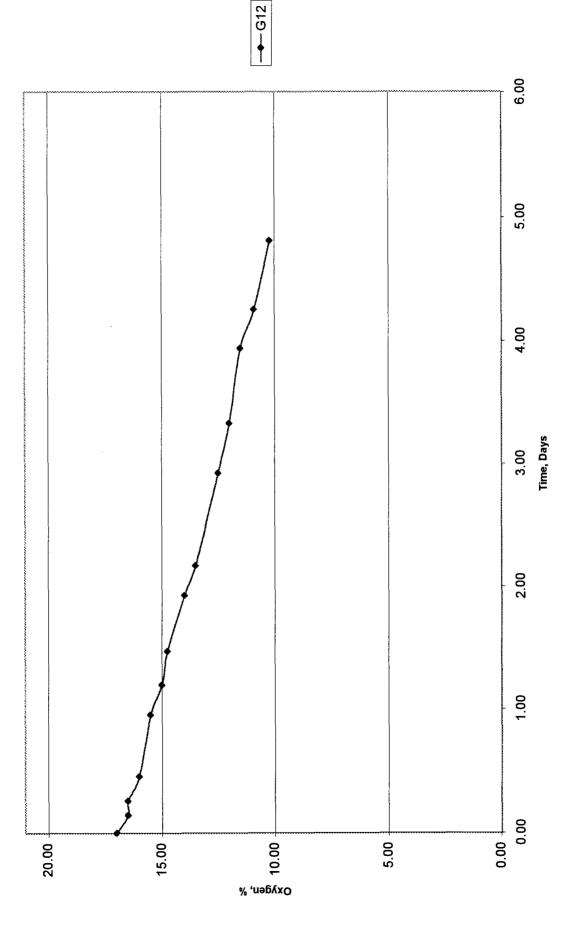
→-E17 3.50 3.00 2.50 2.00 Time, Days 1.50 1.00 0.50 → 00.0 0xygen, % 20.00 15.00 5.00





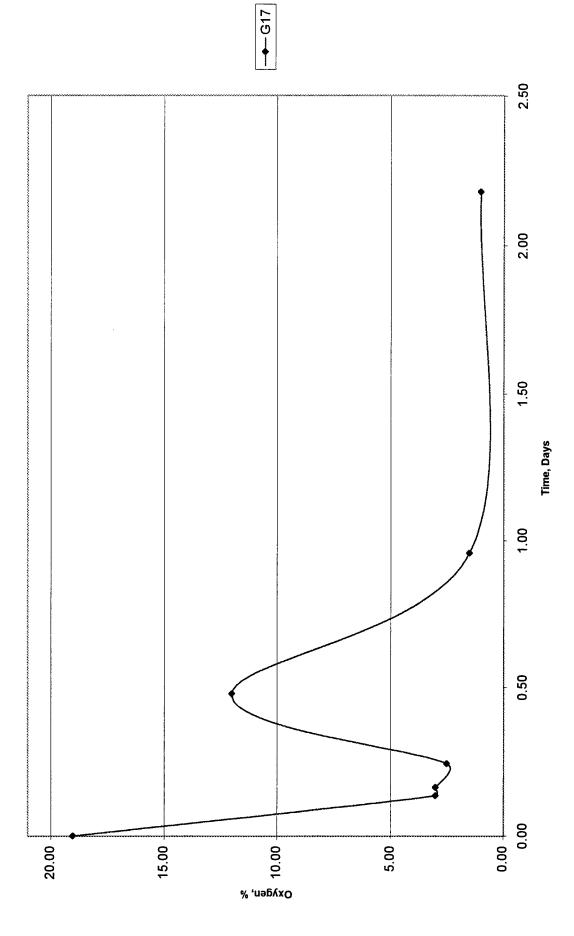
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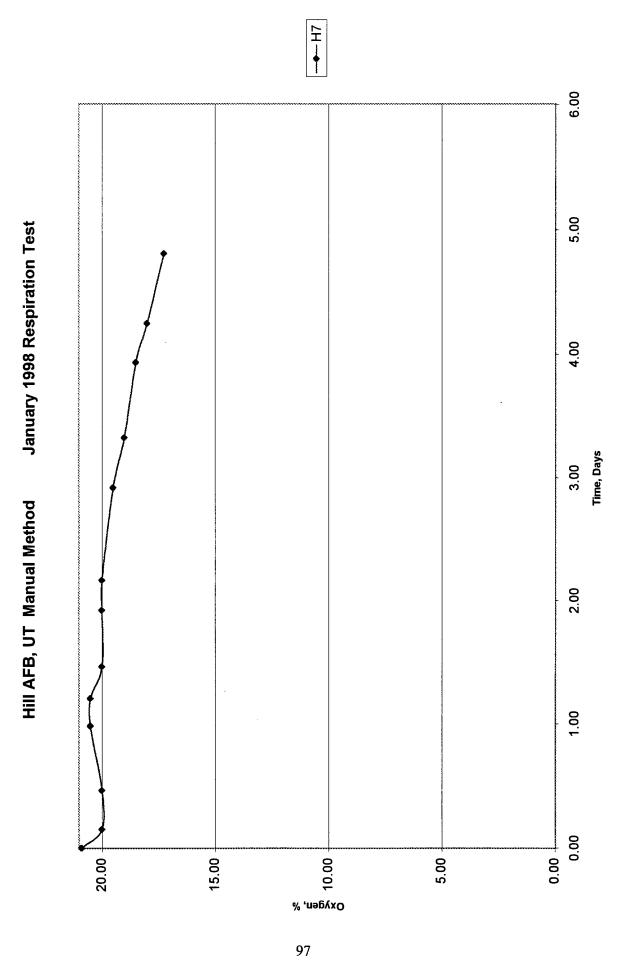
₩-G7 6.00 5.00 4.00 Time, Days 3.00 2.00 1.00 0.00 0.00 %, nayyxO 10.00 20.00 15.00 5.00

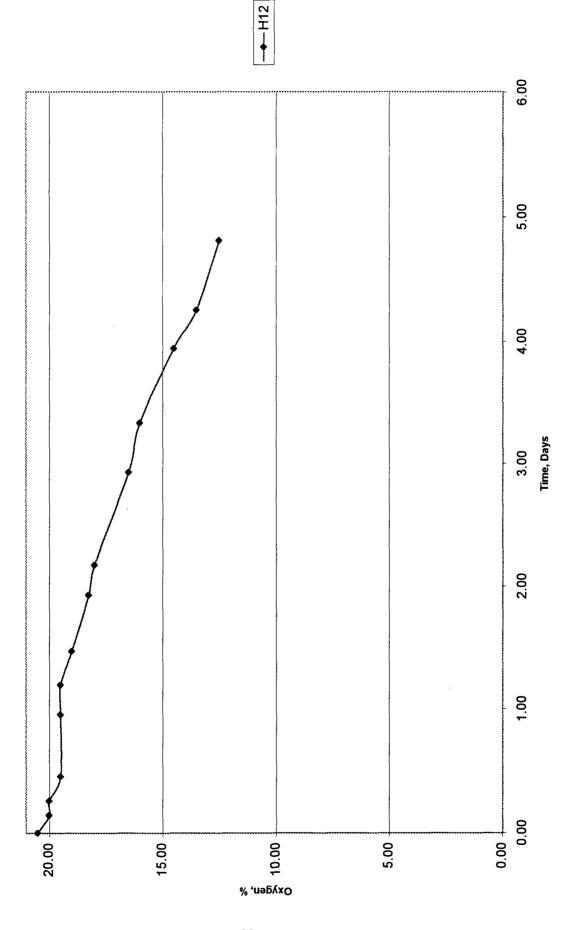


Hill AFB, UT Manual Method Jai

January 1998 Respiration Test

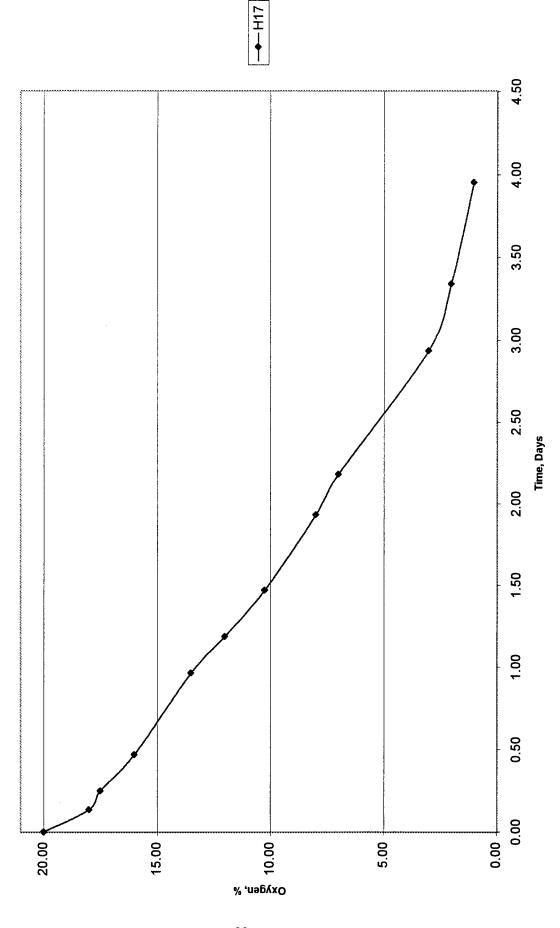






Hill AFB, UT Manual Method

January 1998 Respiration Test



OXYGEN UTILIZATION PLOTS MONITORED BY MANUAL METHOD DURING RESPIRATION TESTING

April 1998

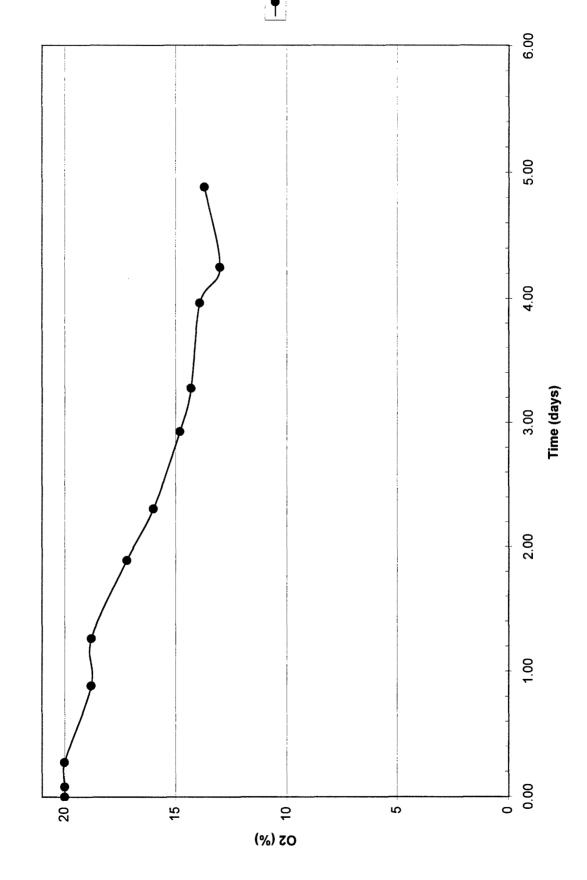
April 1998 Respiration Test

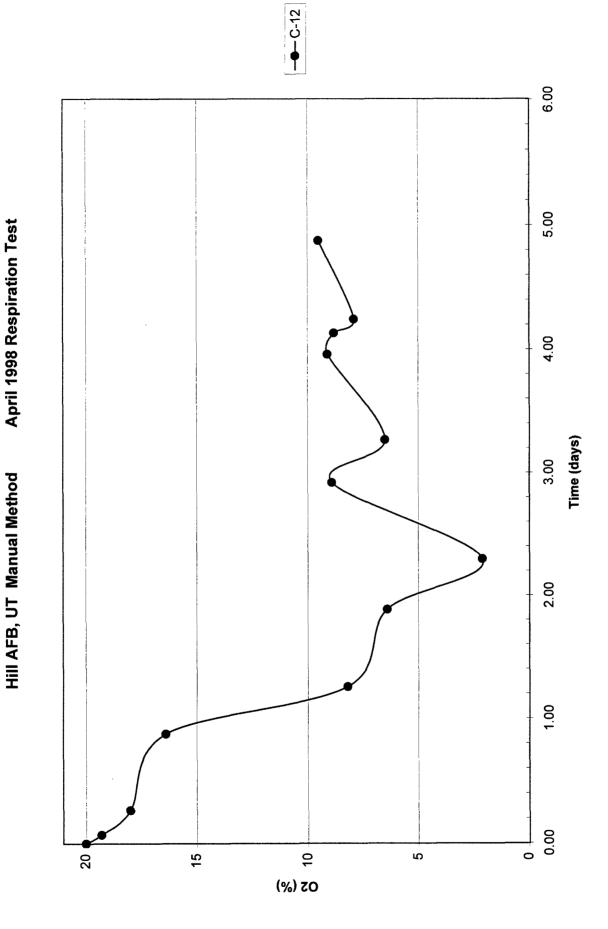
April 1998 Respiration Test

104

— B-12 6.00 5.00 4.00 Time (days) 3.00 2.00 1.00 0.0 (%) **c**O 15 Ŋ

106





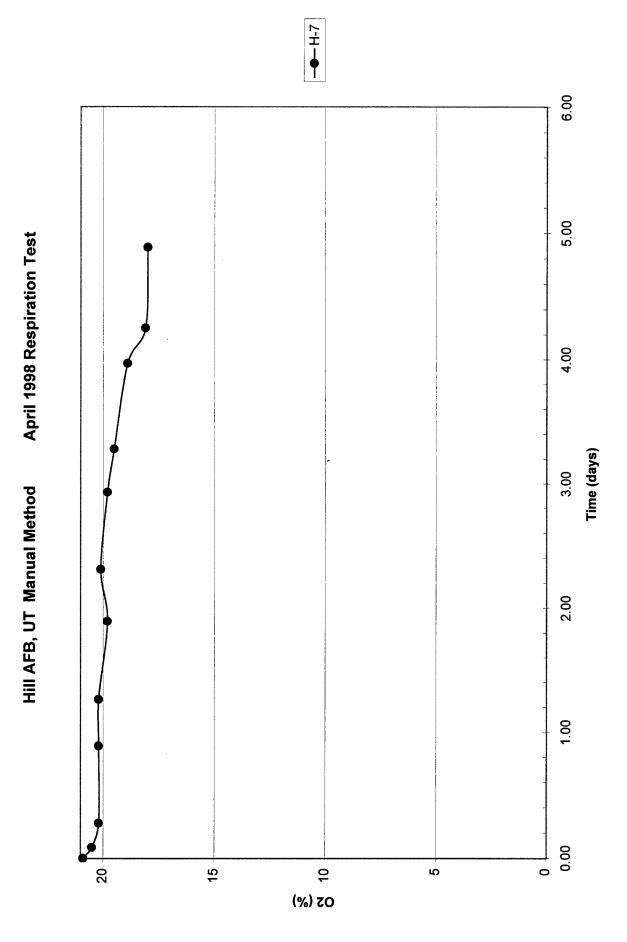
7-E-7 9.00 8.00 7.00 6.00 5.00 Time (days) 4.00 3.00 2.00 1.00 0.00 (%) 2O 15 2

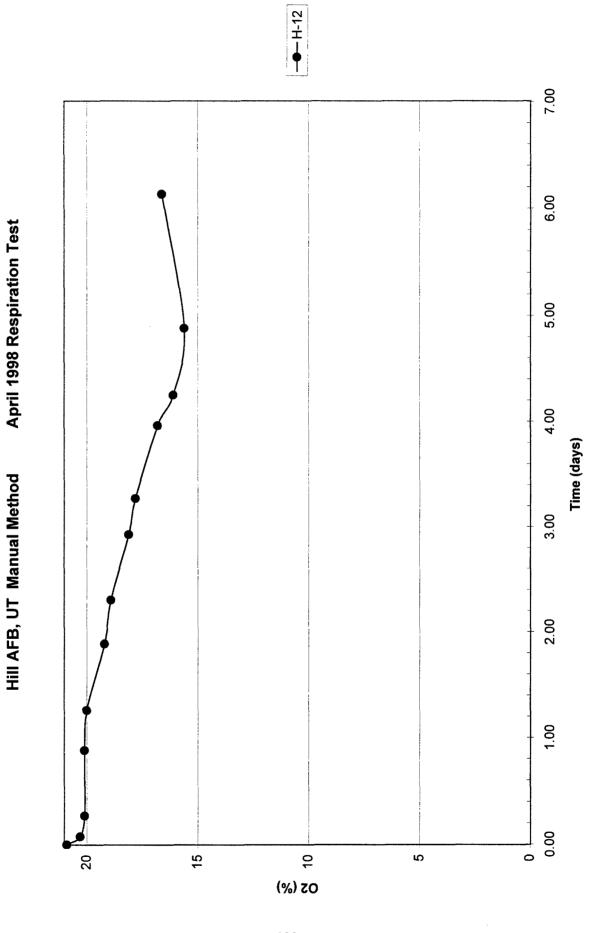
— E-17 3.50 3.00 2.50 2.00 Time (days) 1.50 1.00 0.50 0.00 - (%) **c**O 20 15 2

6.00 5.00 4.00 Time (days) 3.00 2.00 1.00 0.00 15 10 Ŋ (%) 20

6.00 5.00 4.00 Time (days) 3.00 2.00 1.00 0.00 (%) zo 15 20 Š

121





OXYGEN UTILIZATION PLOTS MONITORED BY MANUAL METHOD DURING RESPIRATION TESTING

August 1998

126

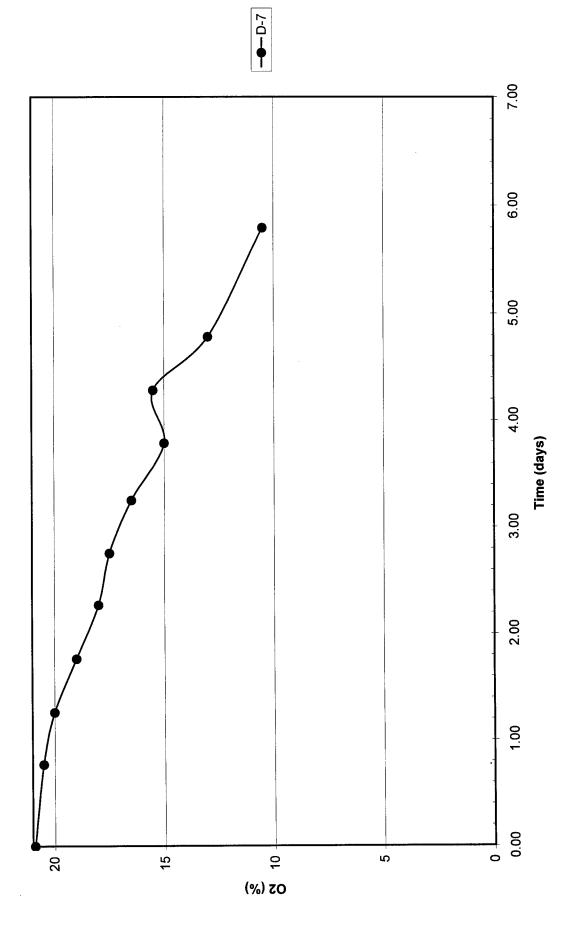
A-17 2.00 1.80 1.60 1.40 1.20 Time (days) 1.00 0.80 0.60 0.40 0.20 0.00 10 2 15 20 (%) 20

131

7.00 6.00 August 1998 Respiration Test 5.00 4.00 Time (days) Hill AFB, UT Manual Method 2.00 1.00 9.0 5 (%) SO 20 15

→-C-12 4.00 3.50 August 1998 Respiration Test 3.00 2.50 Time (days) 2.00 Hill AFB, UT Manual Method 1.50 1.00 0.50 0.0 (%) SO 5 5 20 5

1 C-17 2.00 1.80 1.60 1.20 Time (days) 1.00 0.80 0.60 0.40 0.20 0.00 20 15 10 Ŋ (%) 70



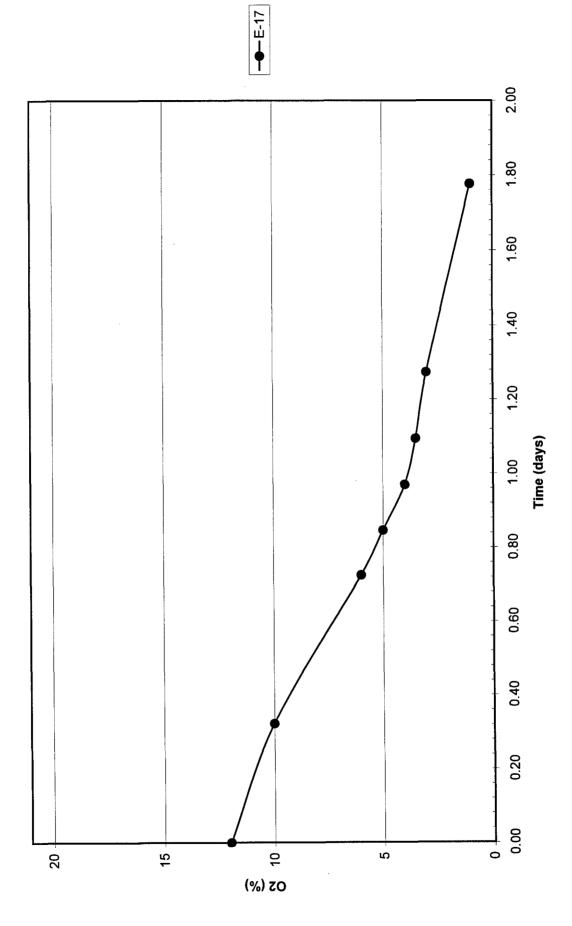
137

August 1998 Respiration Test

Hill AFB, UT Manual Method

1 E-7 7.00 6.00 5.00 4.00 Time (days) 3.00 2.00 1.00 0.00 (%) SO 5 20 15

August 1998 Respiration Test Hill AFB, UT Manual Method



Hill AFB, UT Manual Method

→F-17 4.50 4.00 3.50 3.00 2.50 Time (days) 2.00 1.50 1.00 0.50 0.00 (%) 2O 15 -5 20

145

August 1998 Respiration Test

--G-17 3.50 3.00 2.50 2.00 Time (days) 1.50 1.00 0.50 0.00 15 (%) so 5 ည 20

147

August 1998 Respiration Test

H-H-17 3.50 3.00 2.50 2.00 Time (days) 1.50 1.00 0.50 0.00 15 (%) 2O 5 20

PLOTS OF RESPIRATION GASES (OXYGEN and CARBON DIOXIDE)

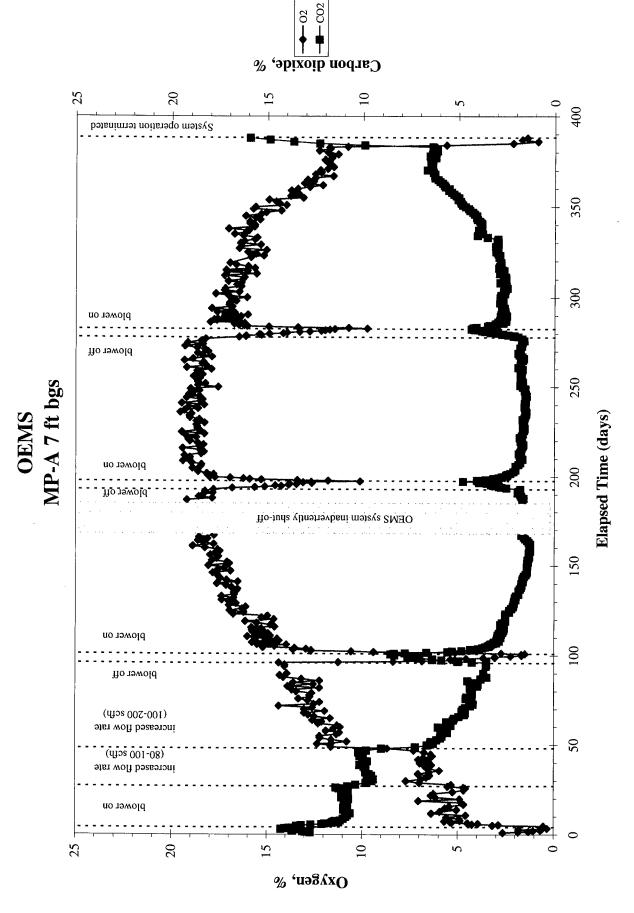
MONITORED BY

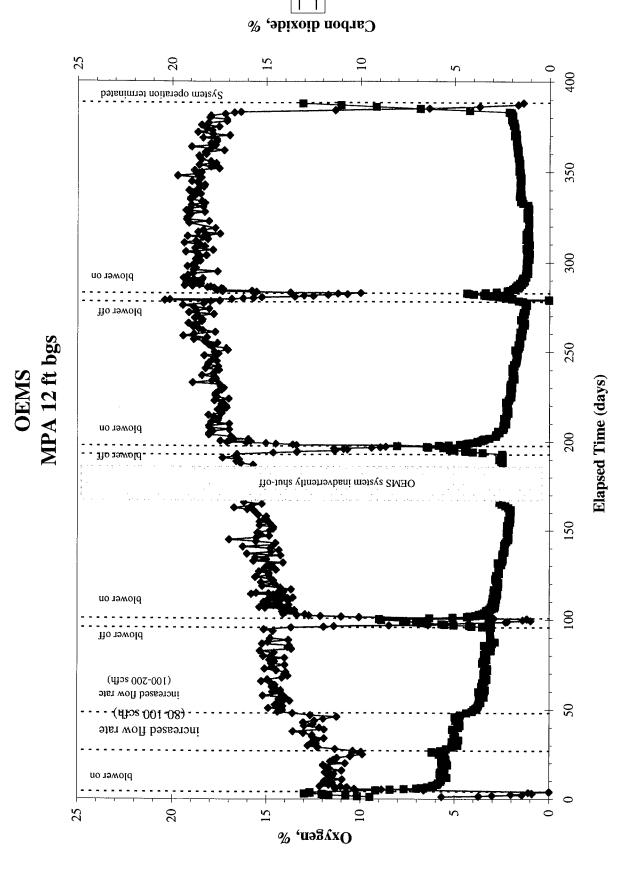
OEMS

DURING BIOVENTING

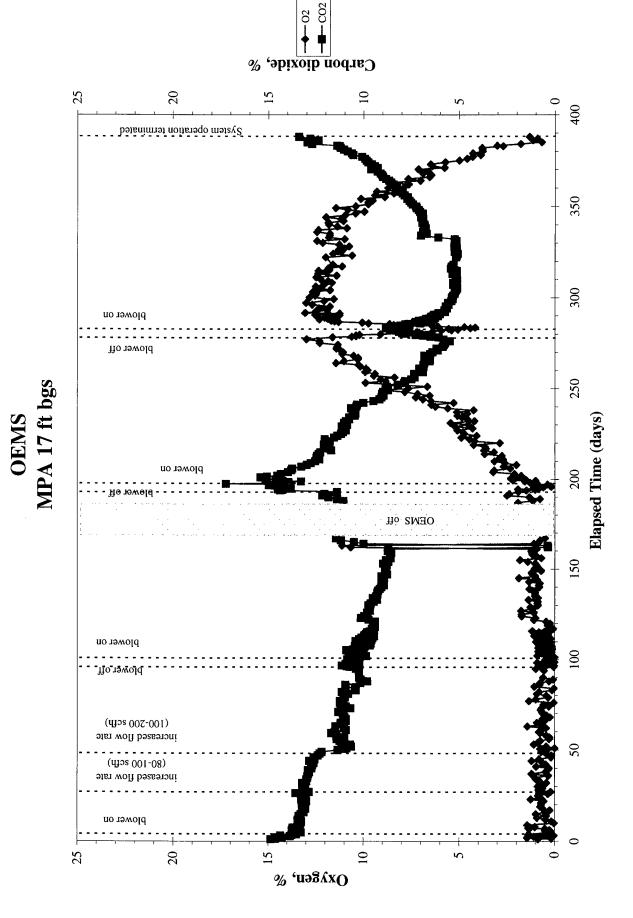
July 1997 to July 1998



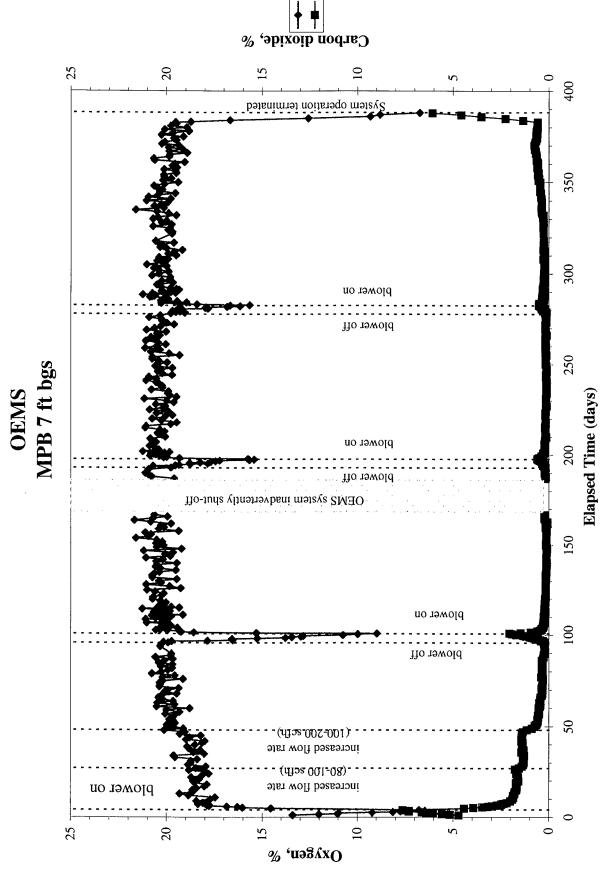


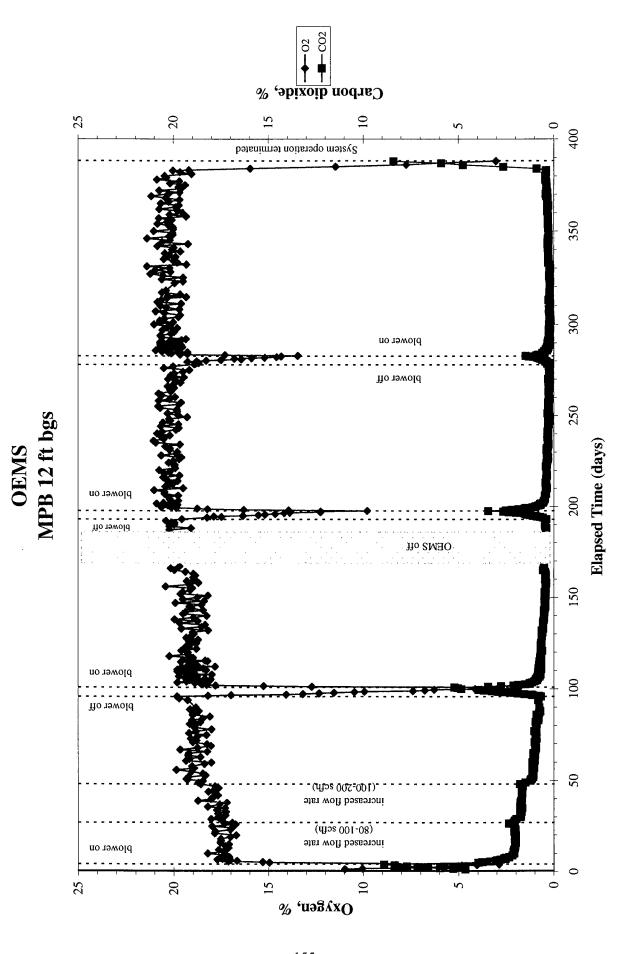


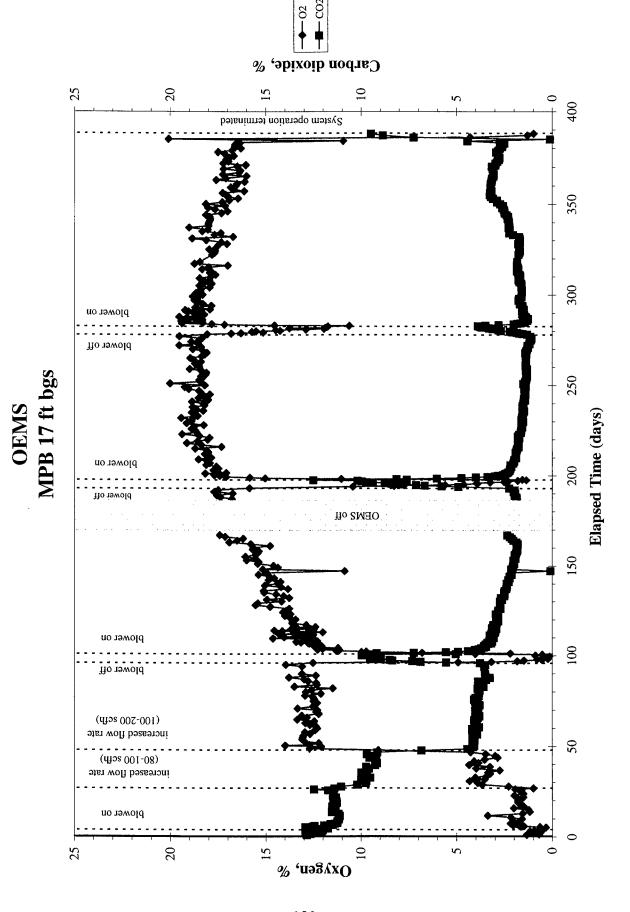


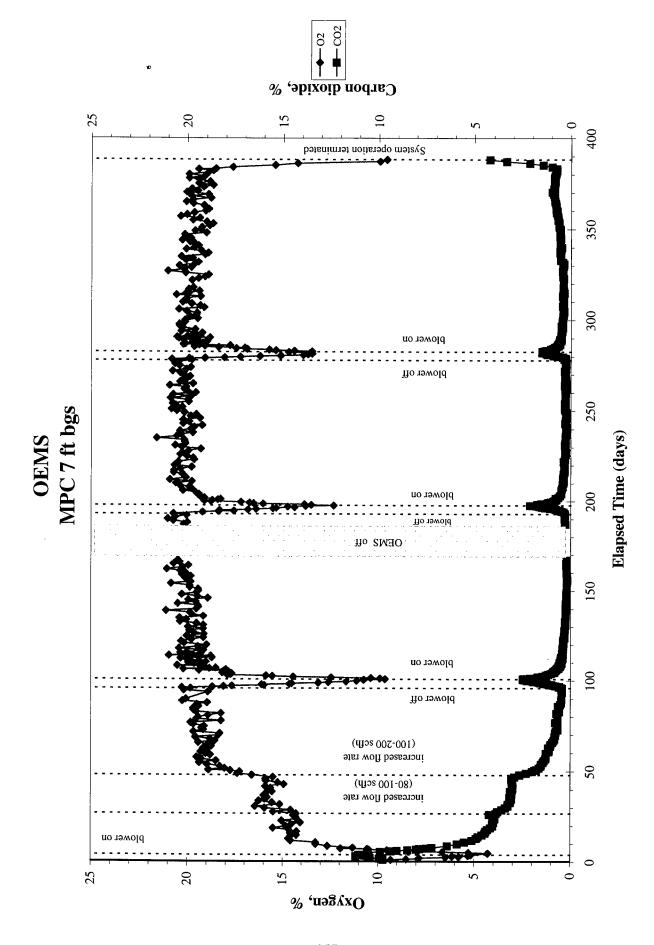


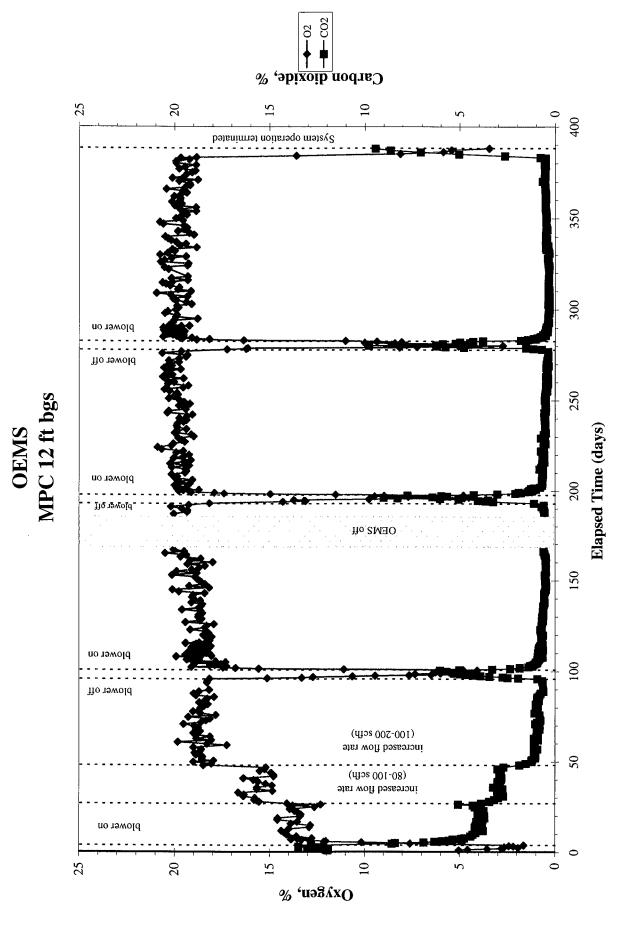


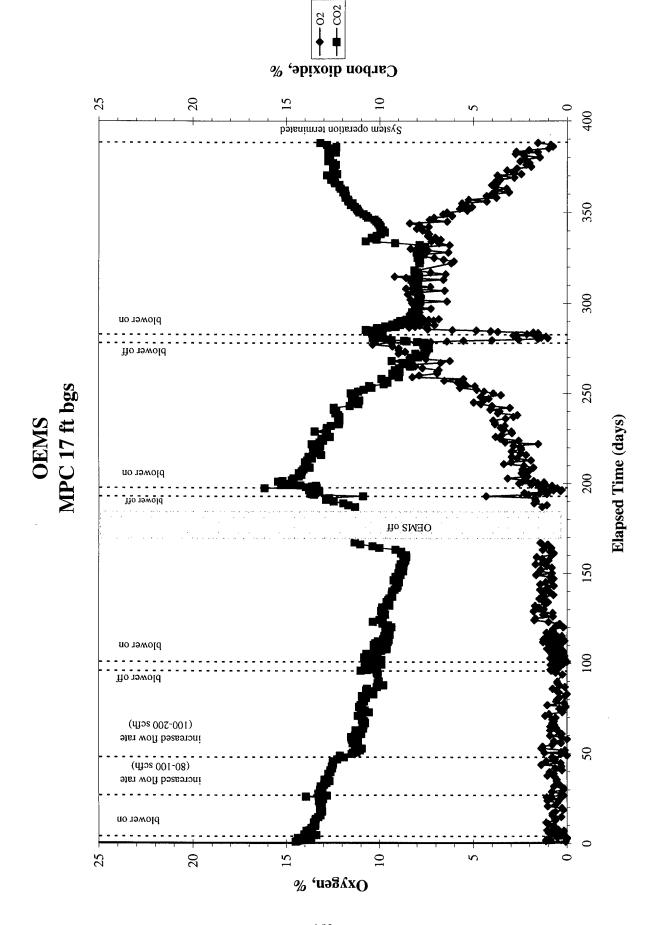


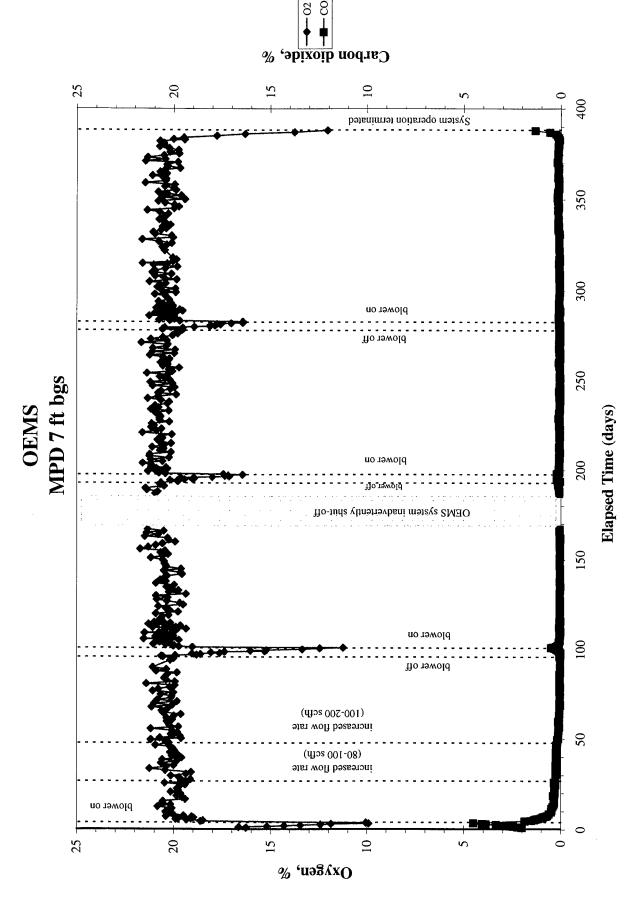




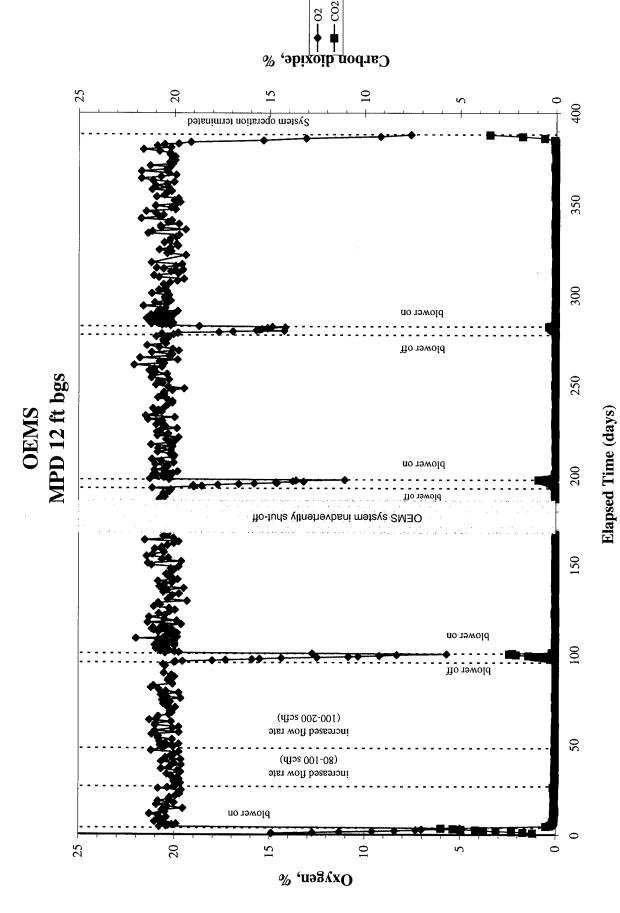


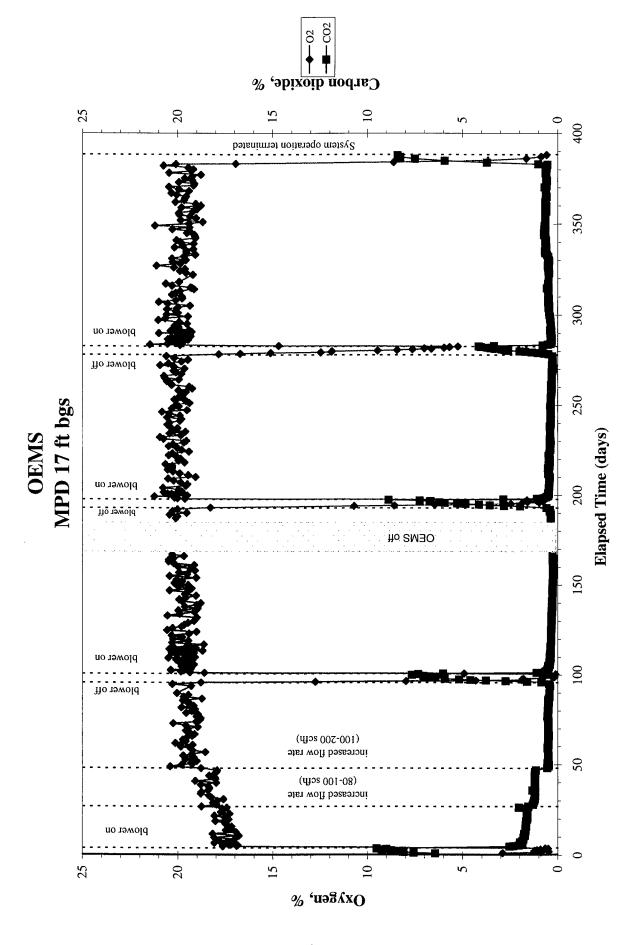


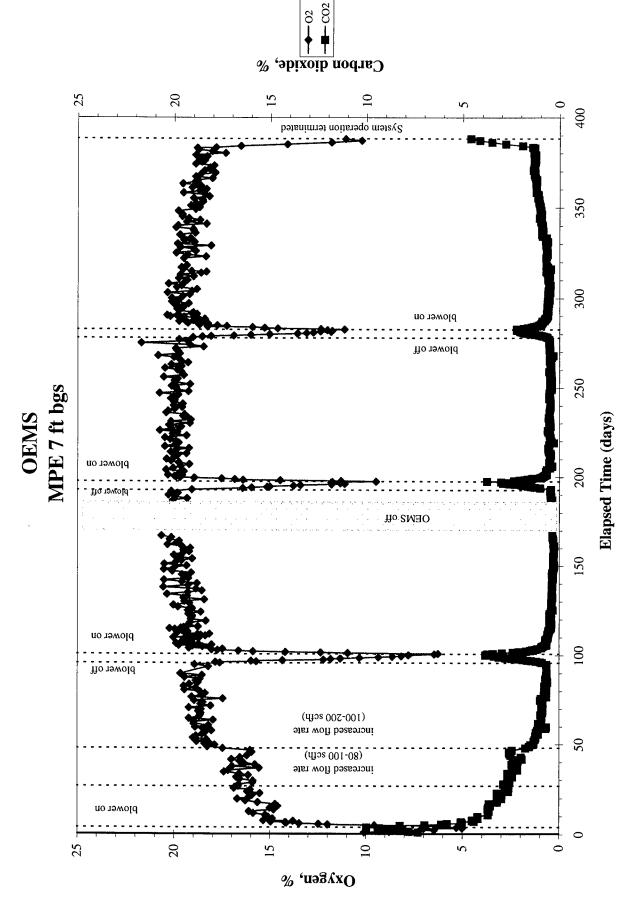


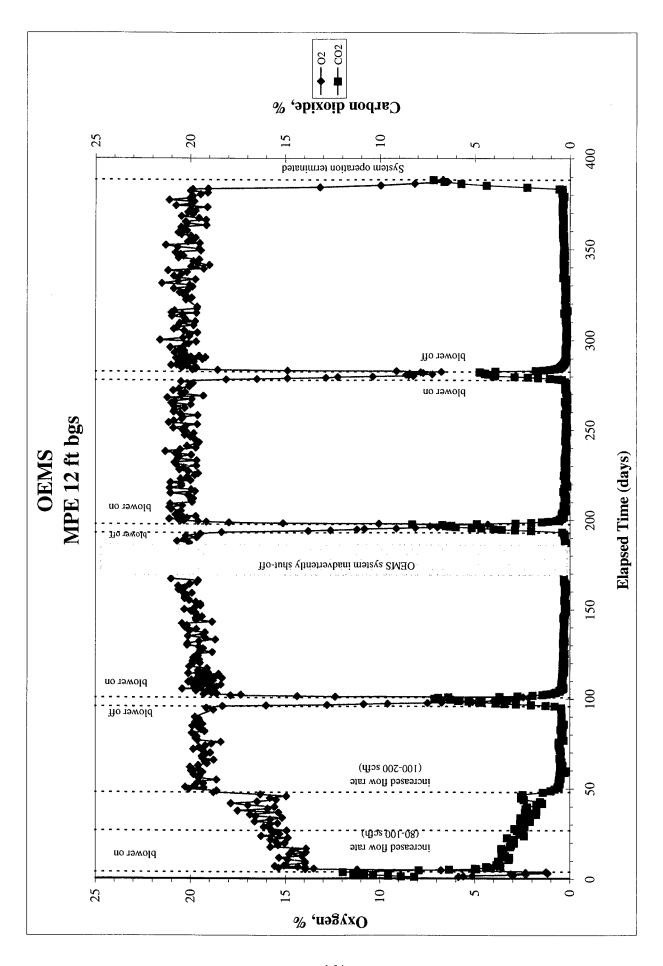




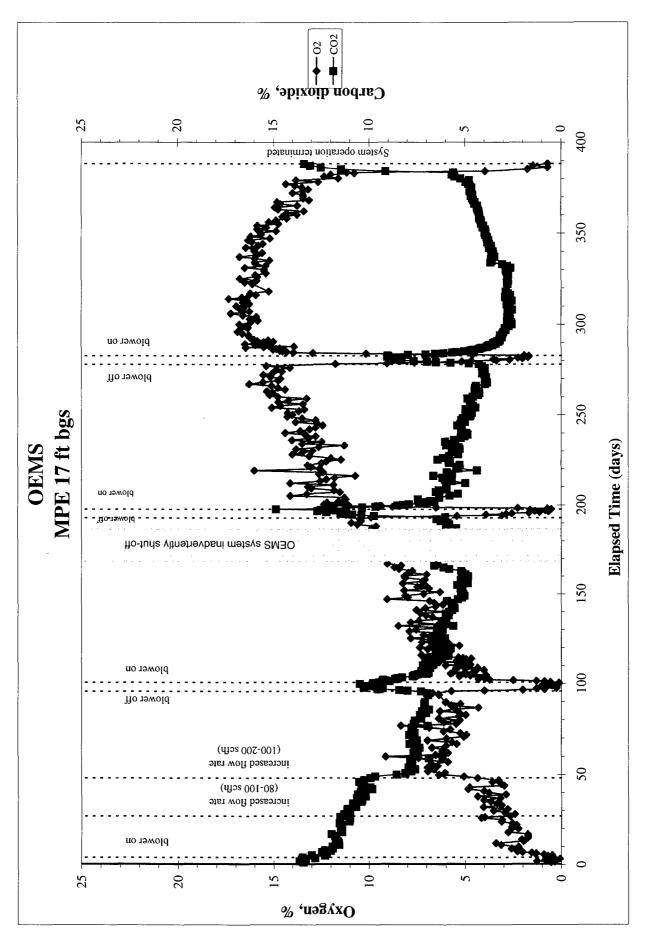


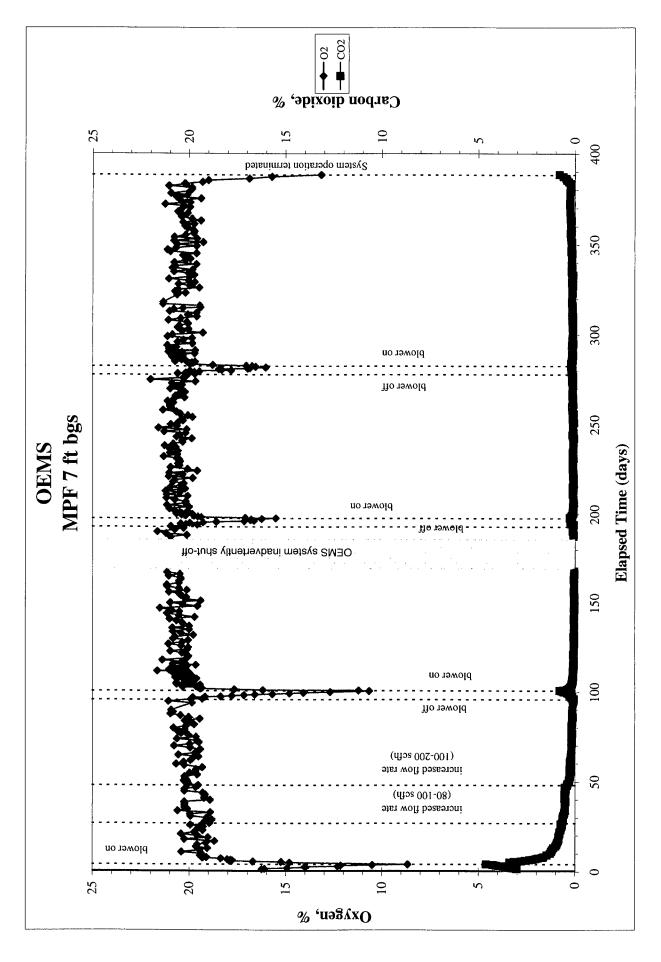


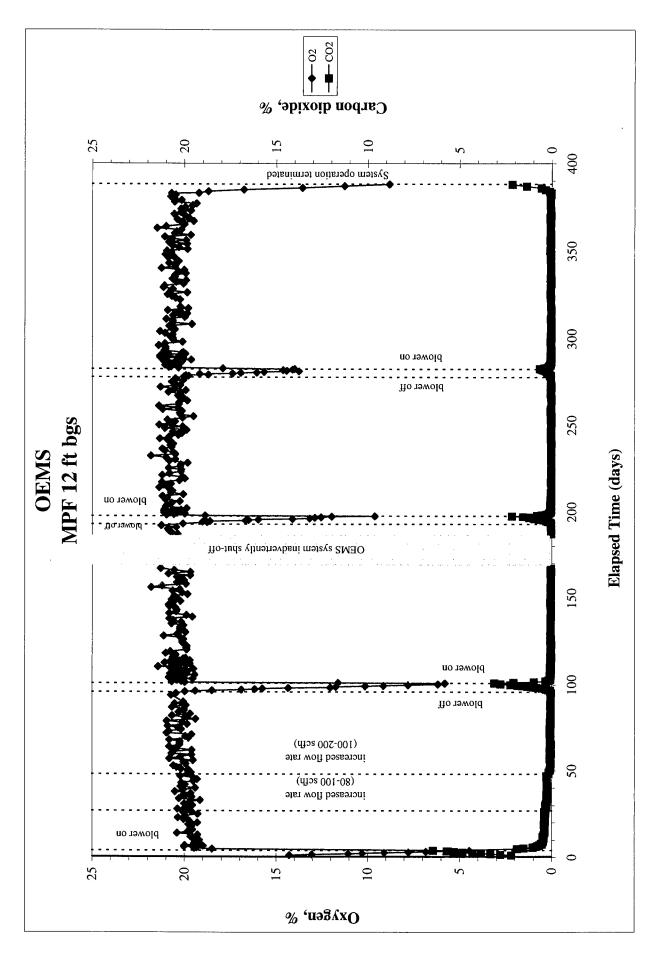


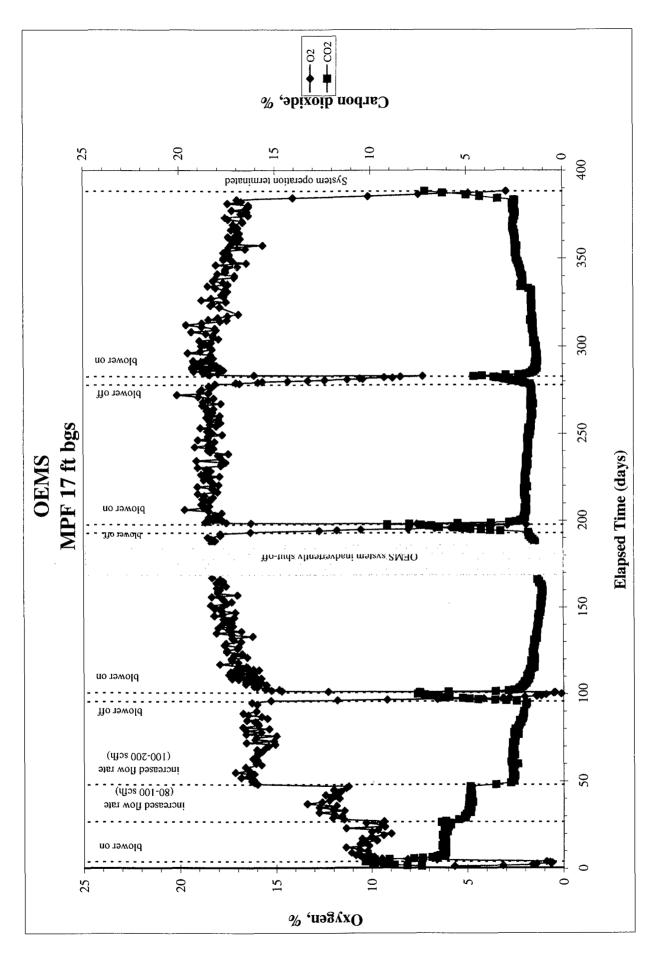


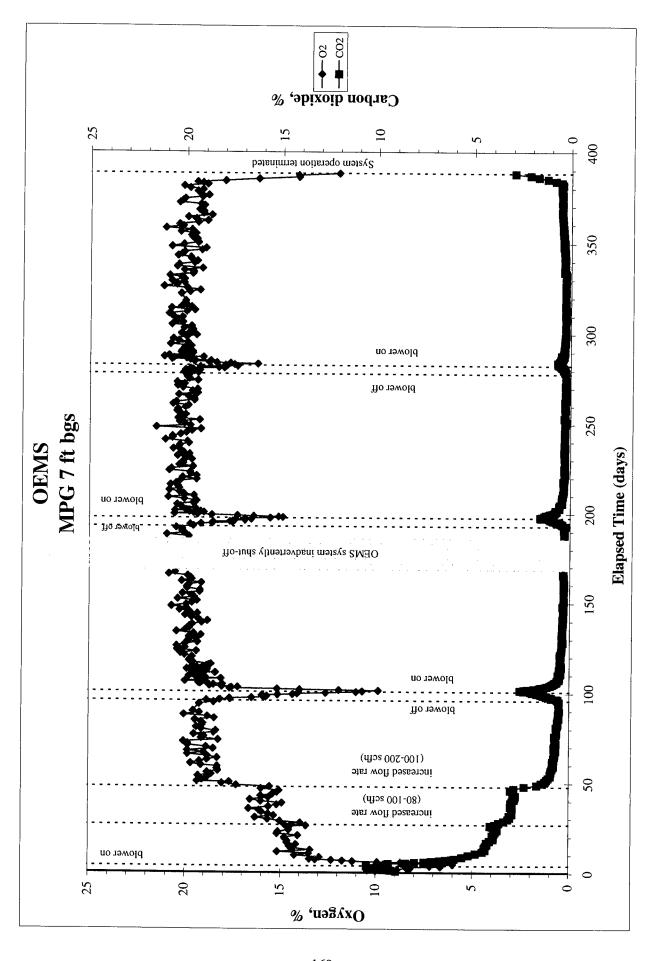




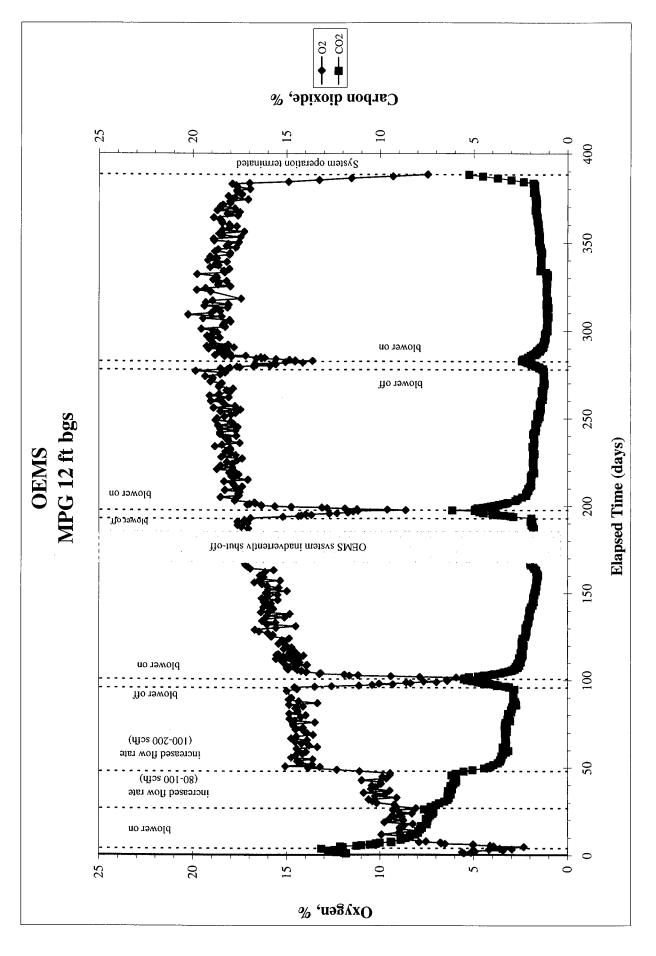


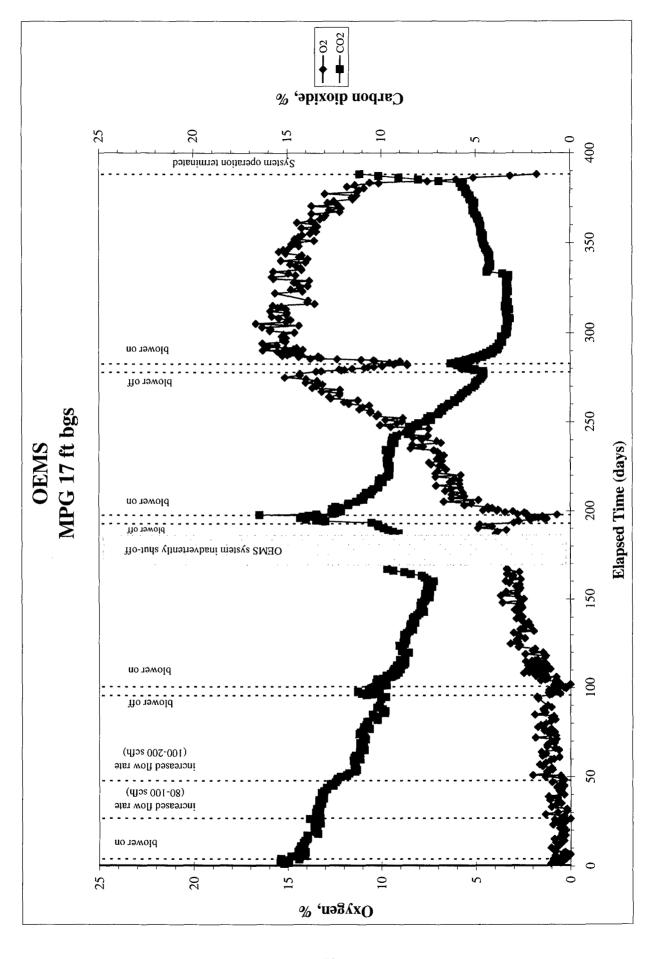


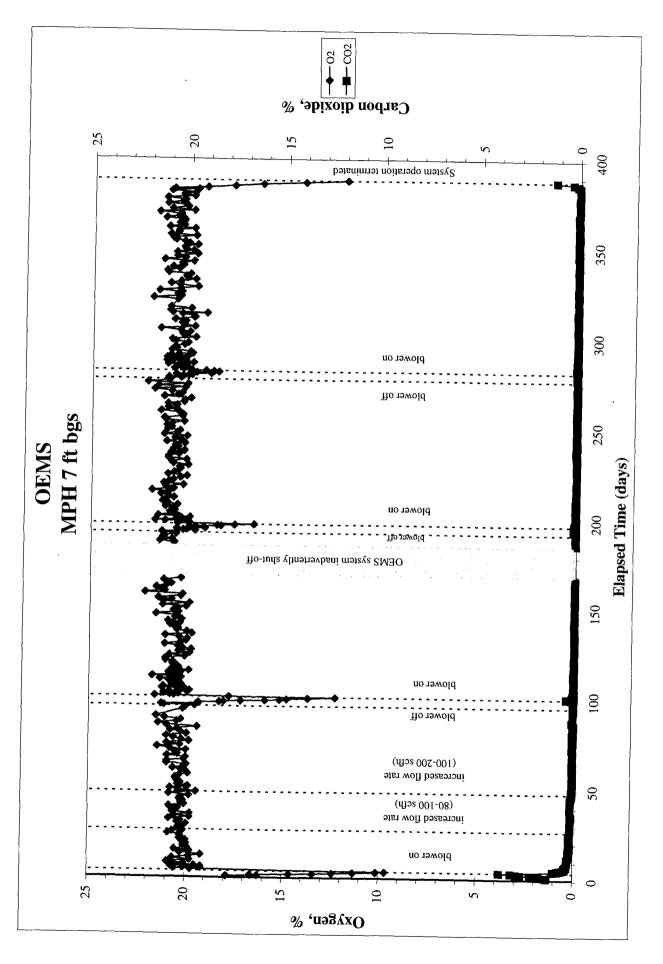


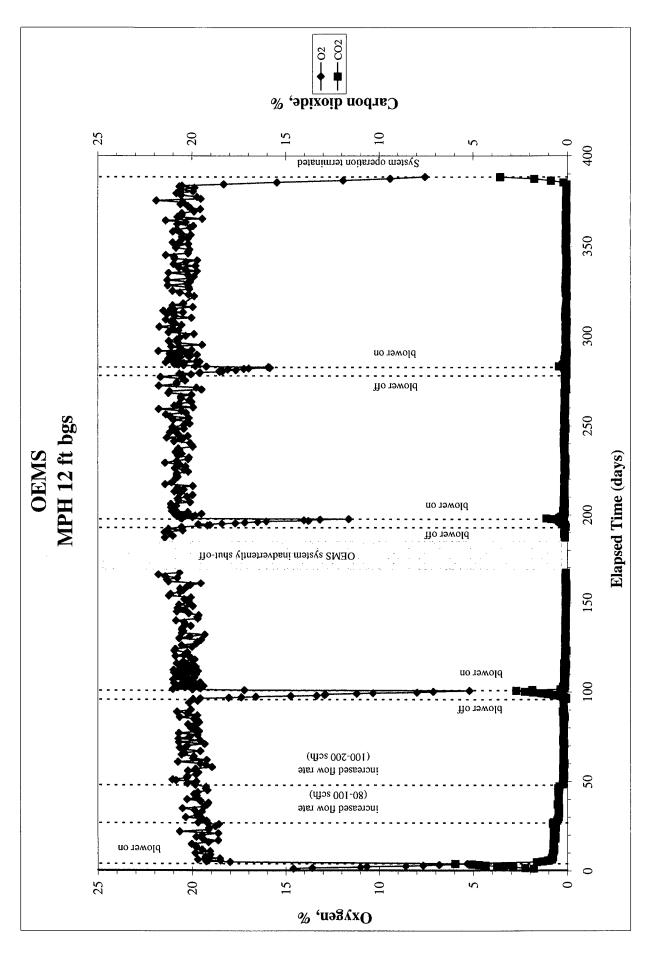


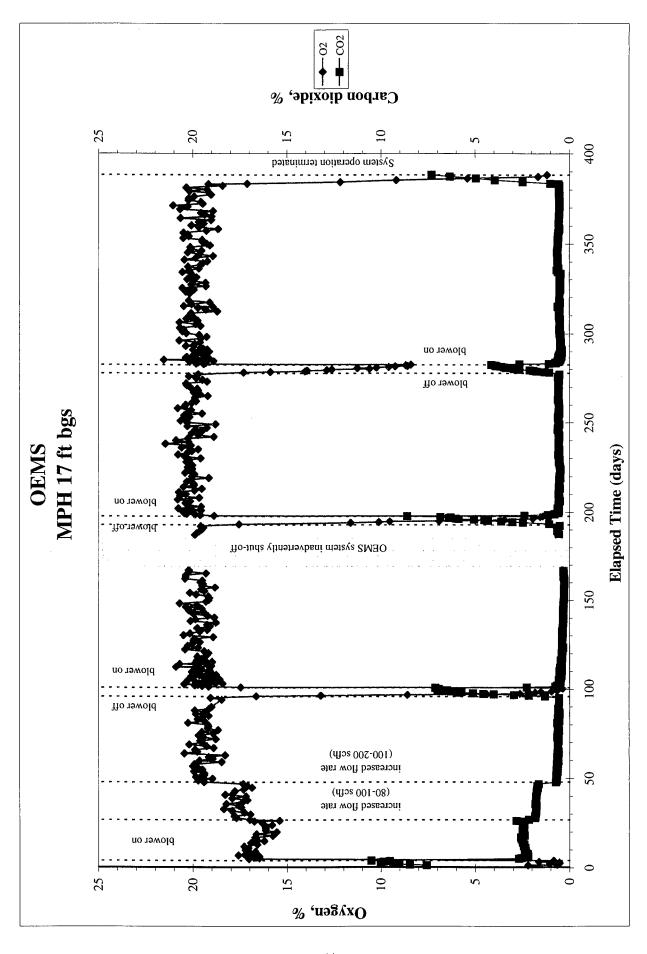












PLOTS OF PERIODIC SOIL GAS MONITORING RESULTS

for

1,2 DCB

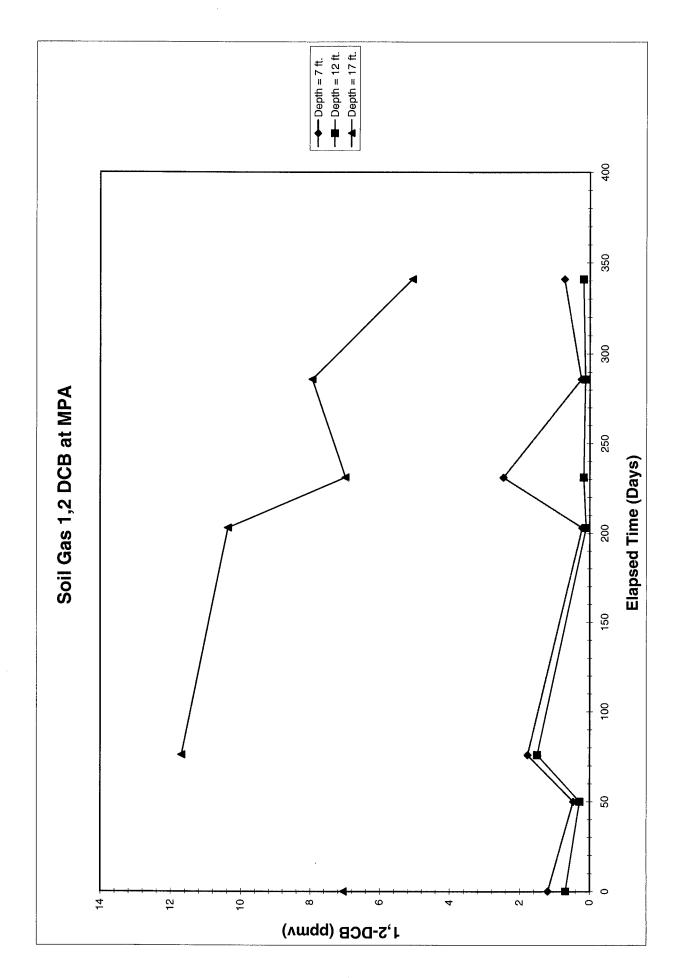
1,3 DCB

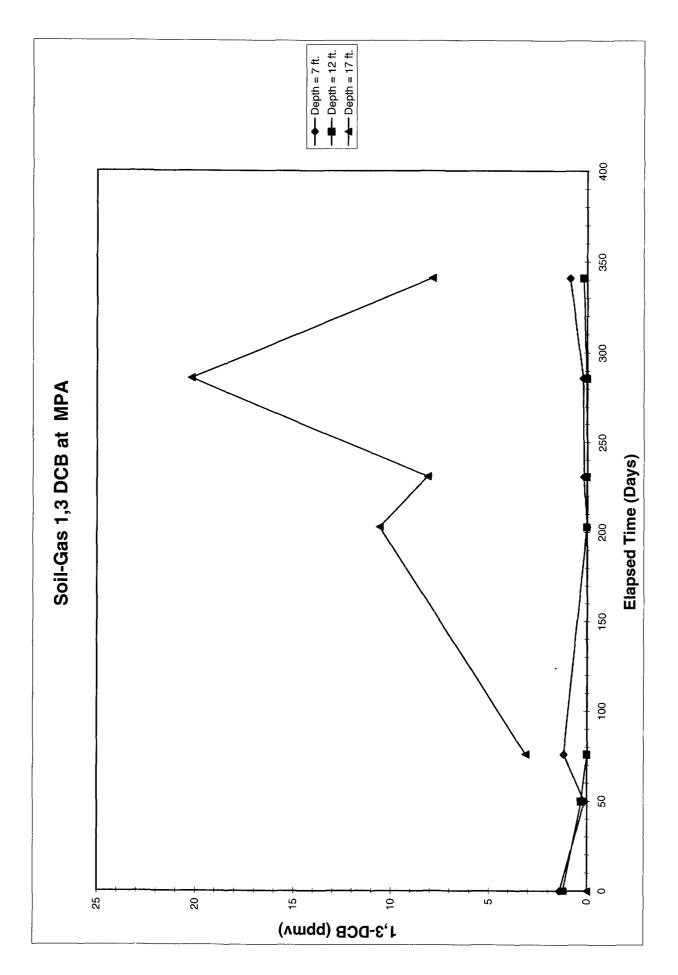
1,4 DCB

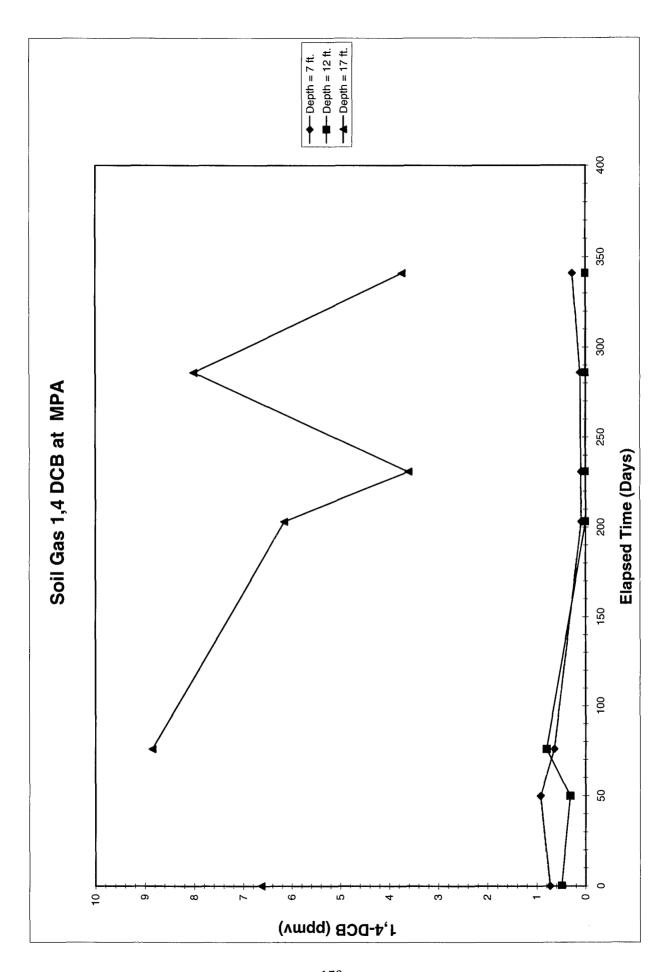
TPH

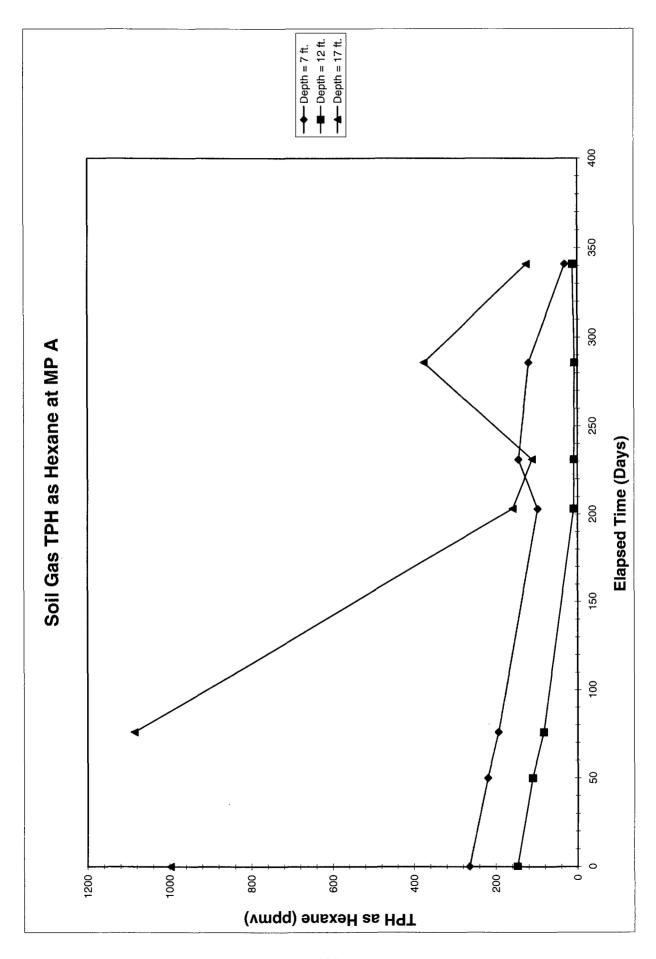
DURING BIOVENTING

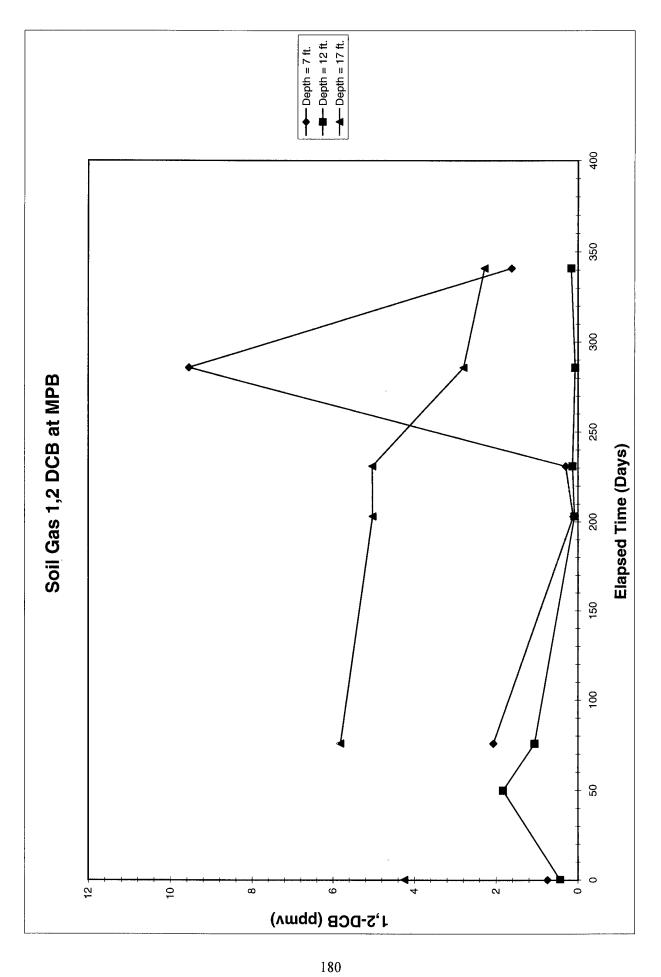
July 1997 to July 1998

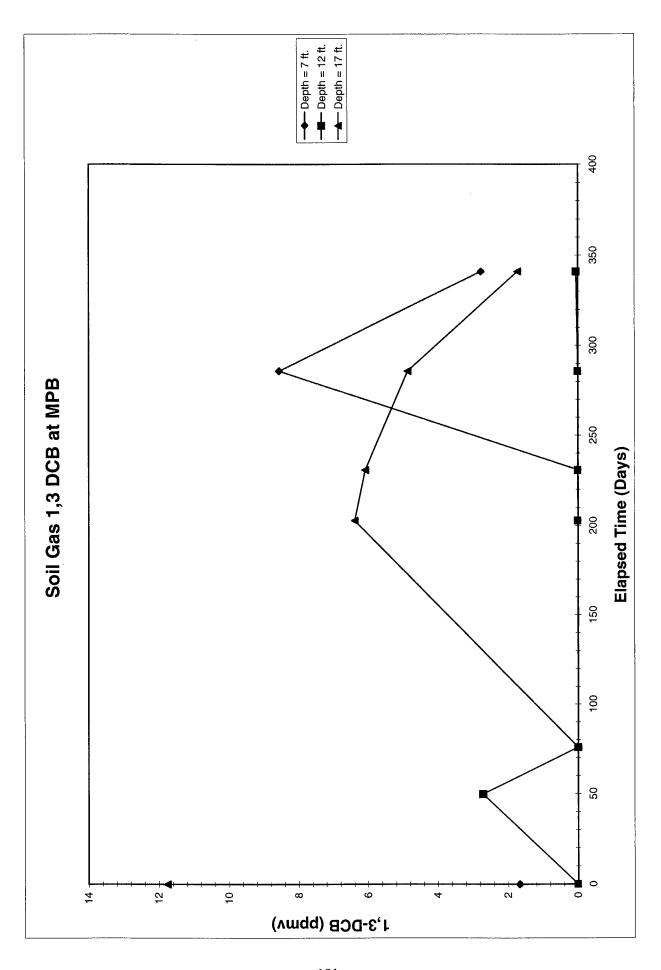


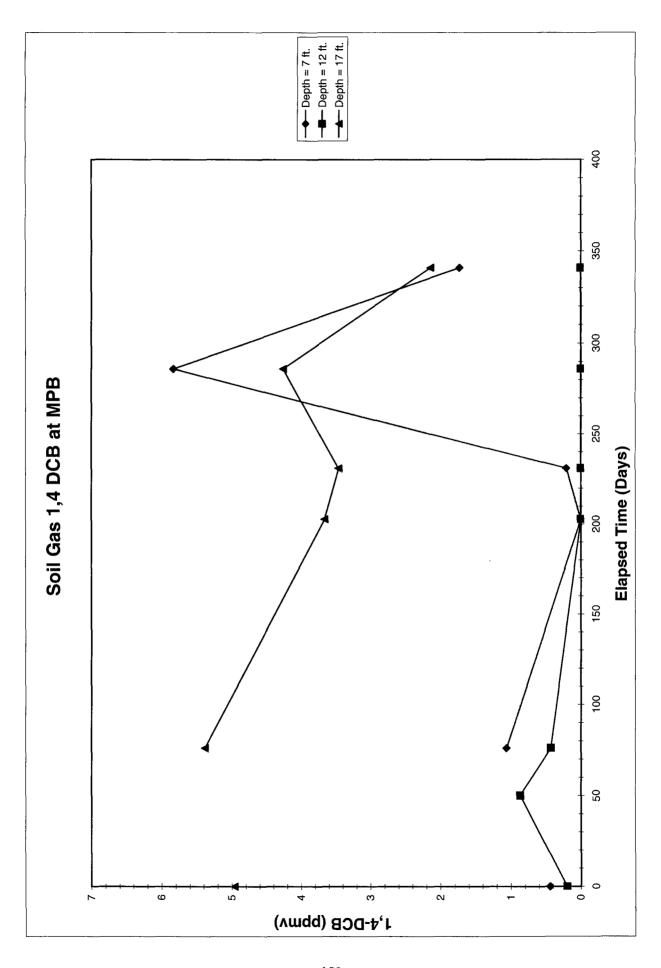


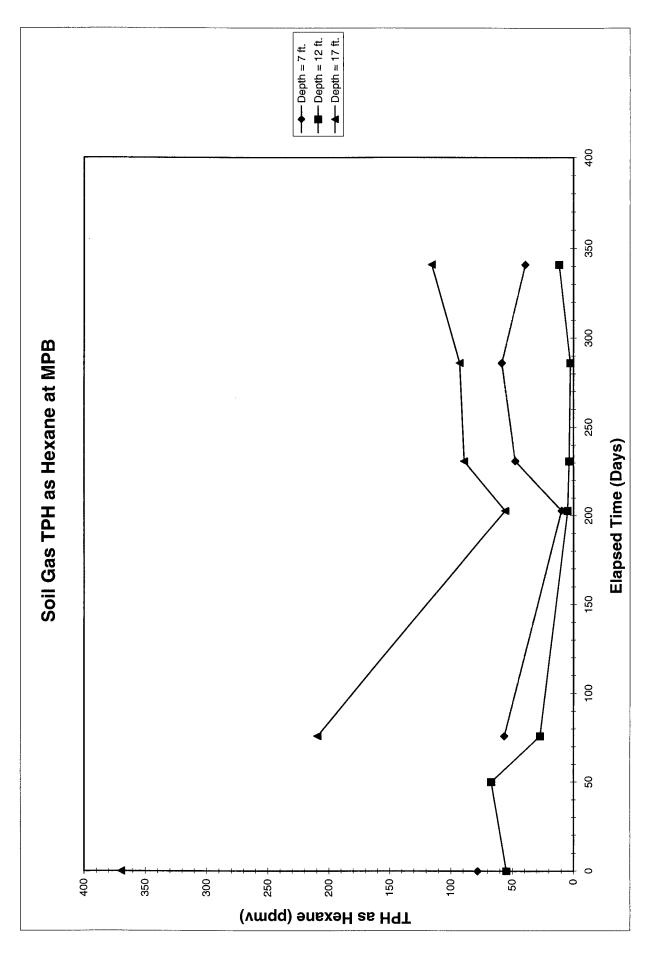


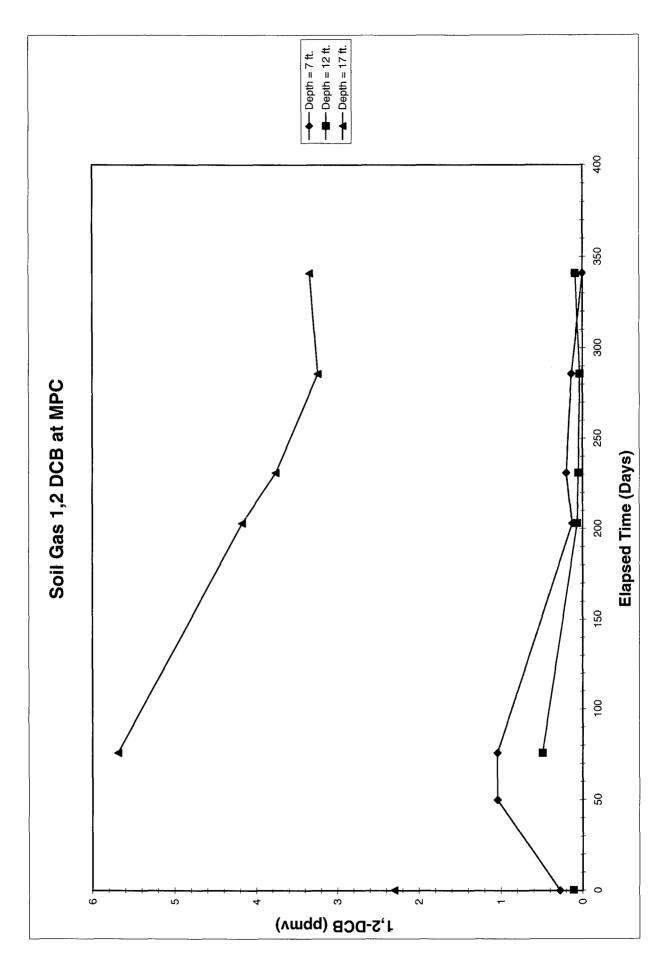


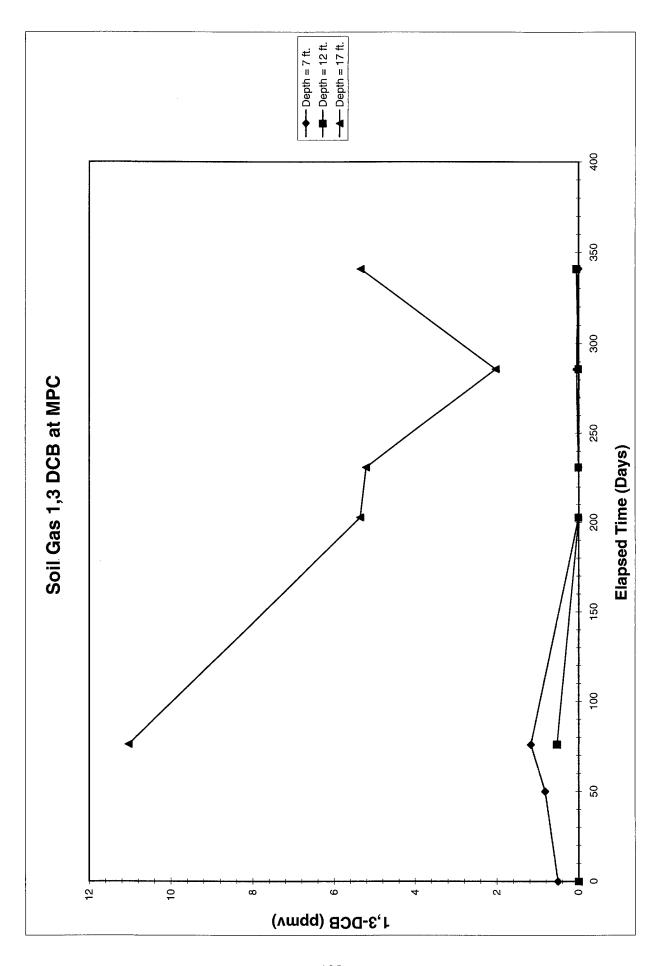


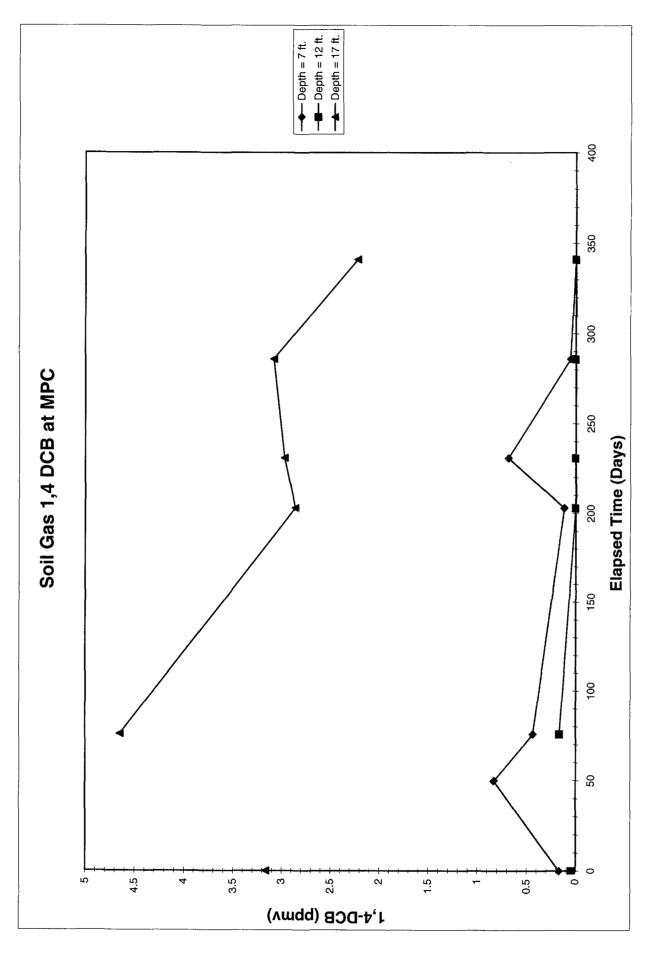


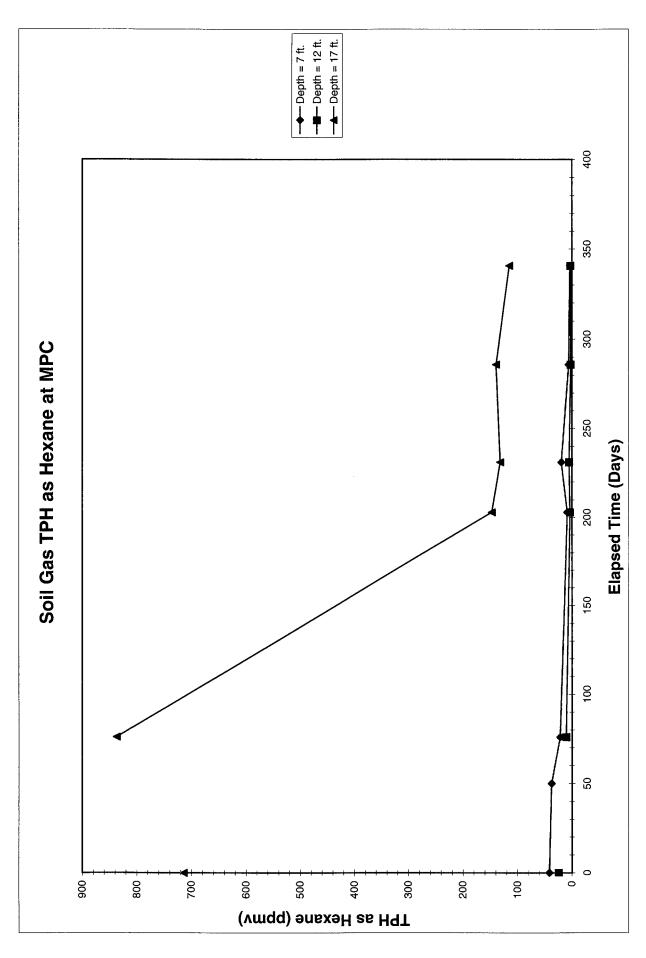


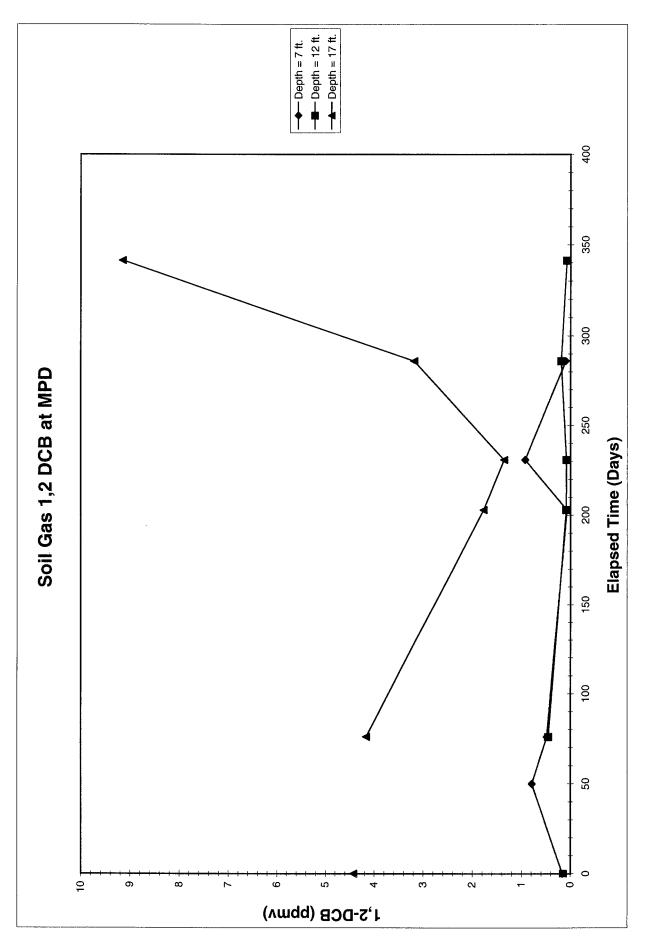


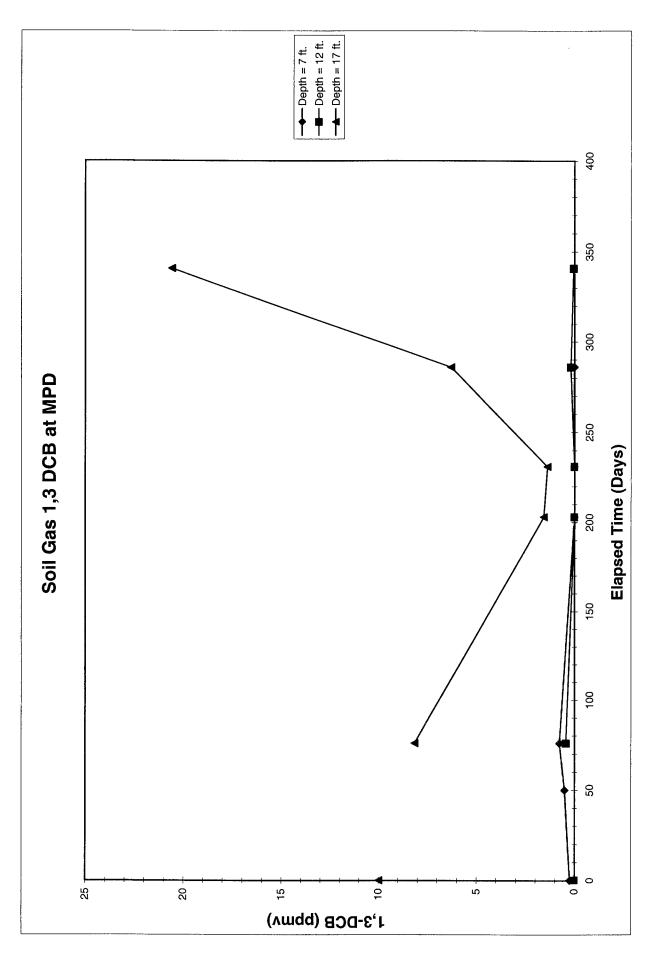


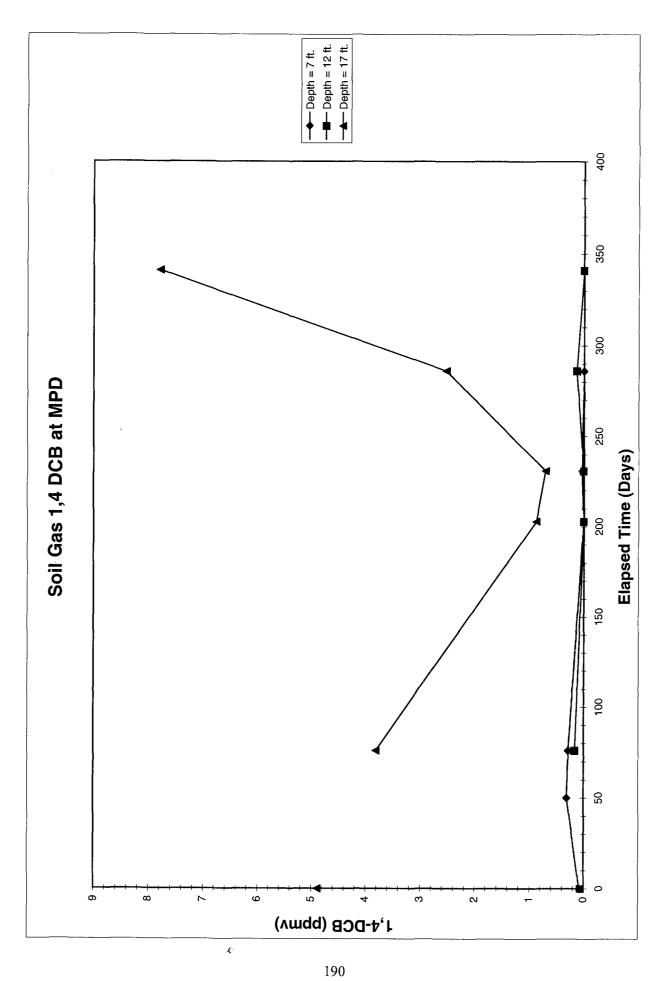


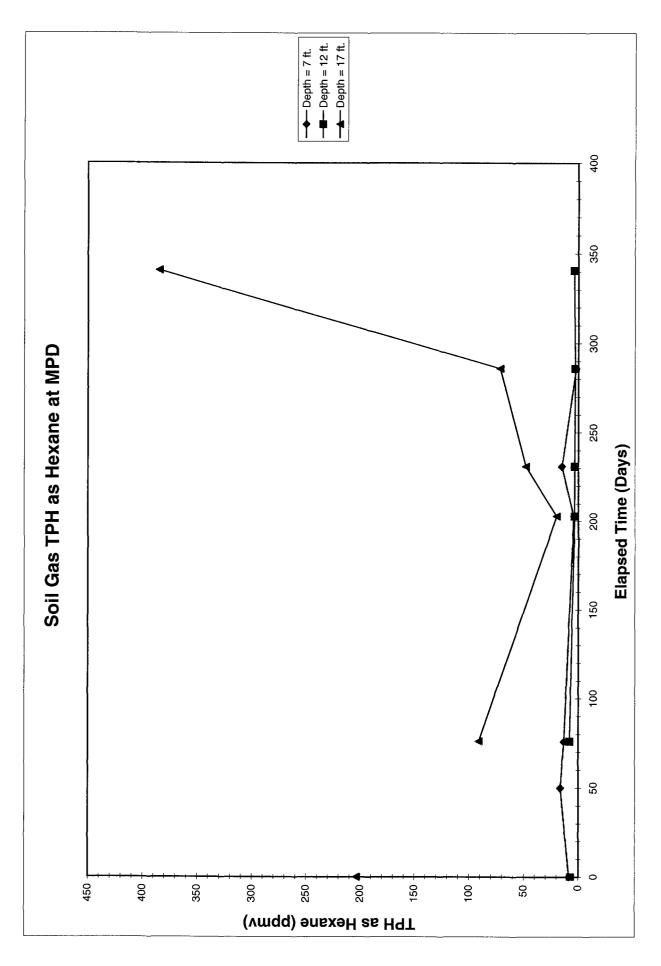


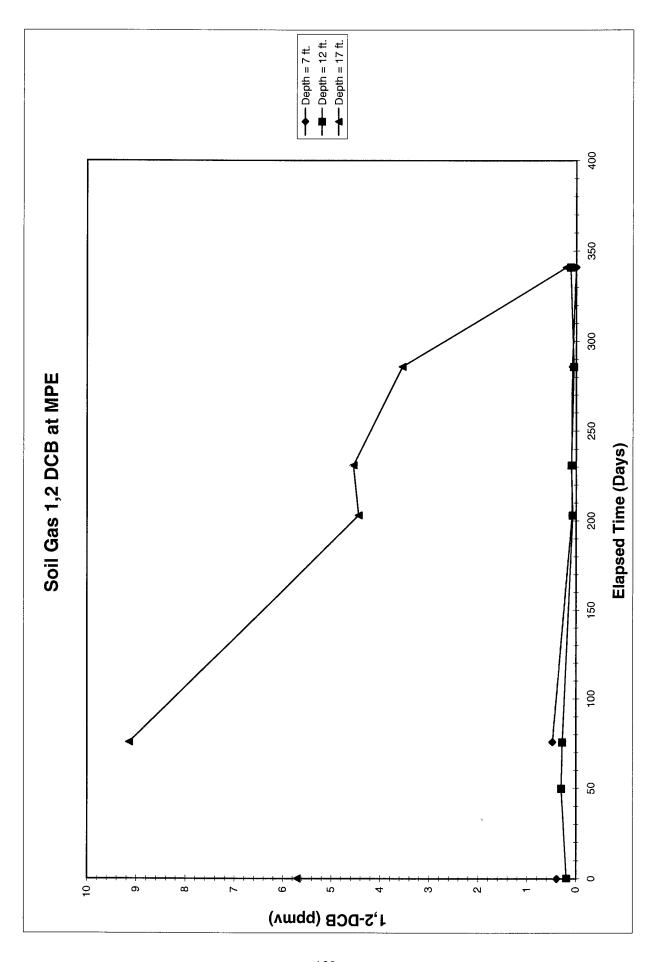


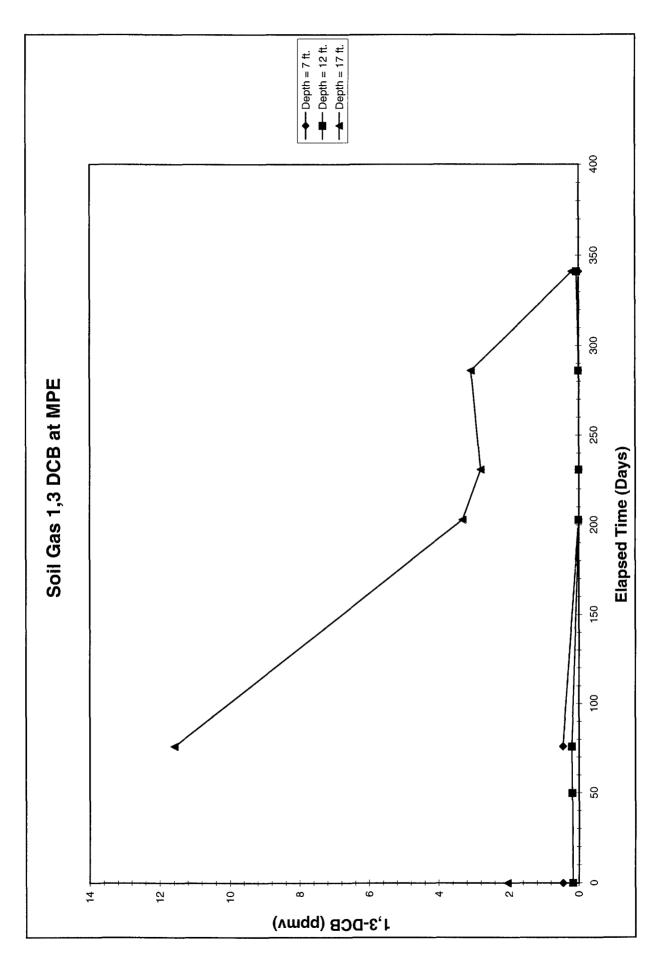


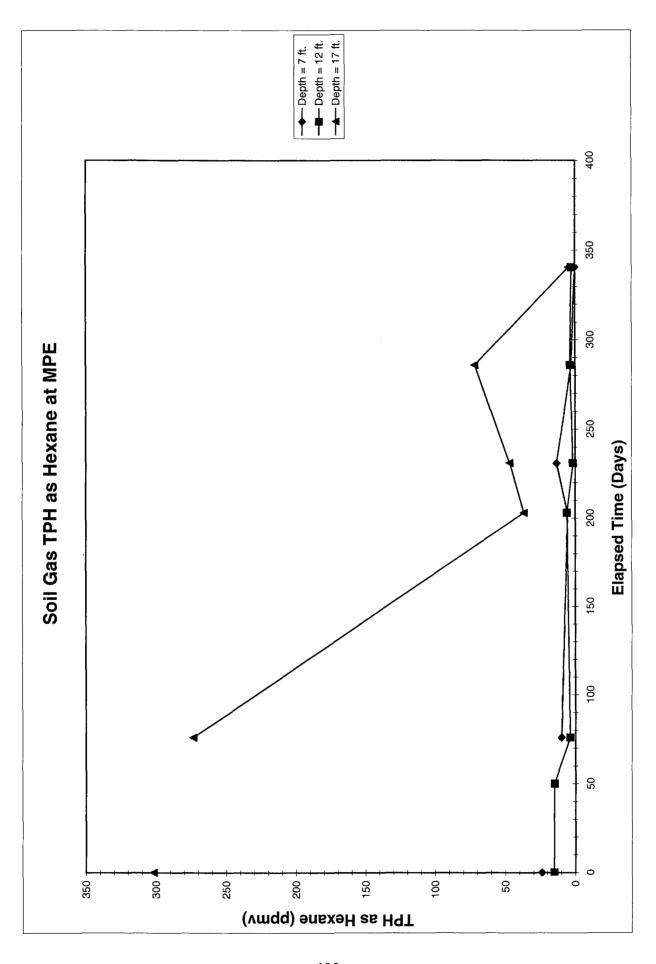


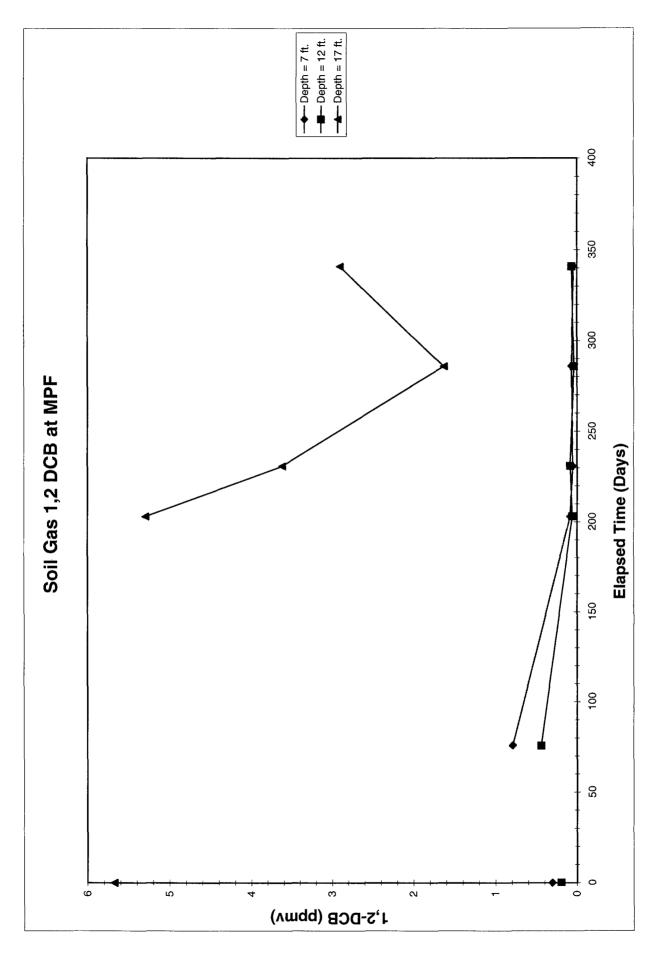


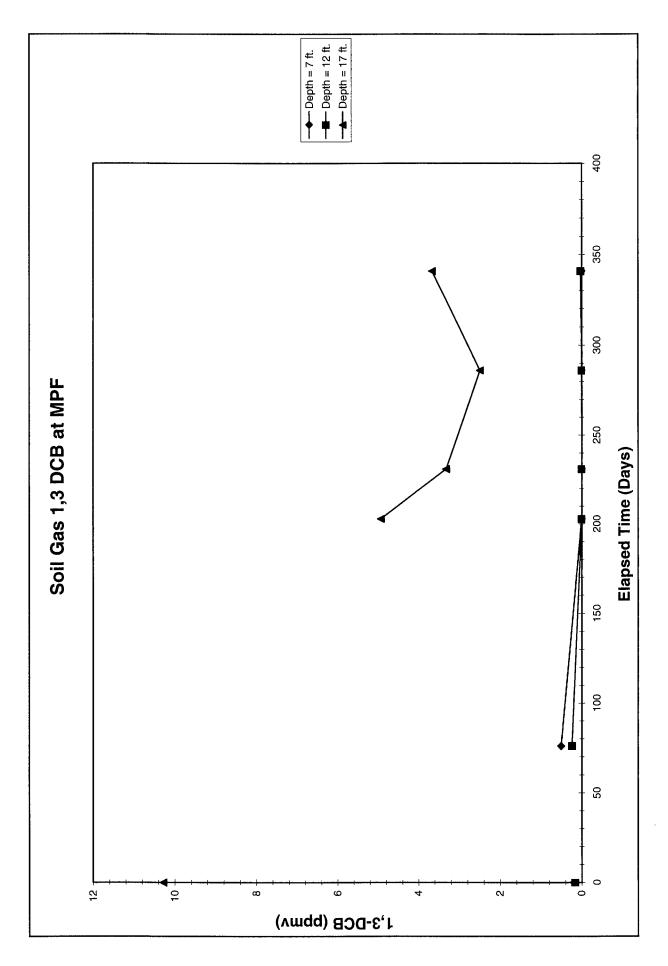


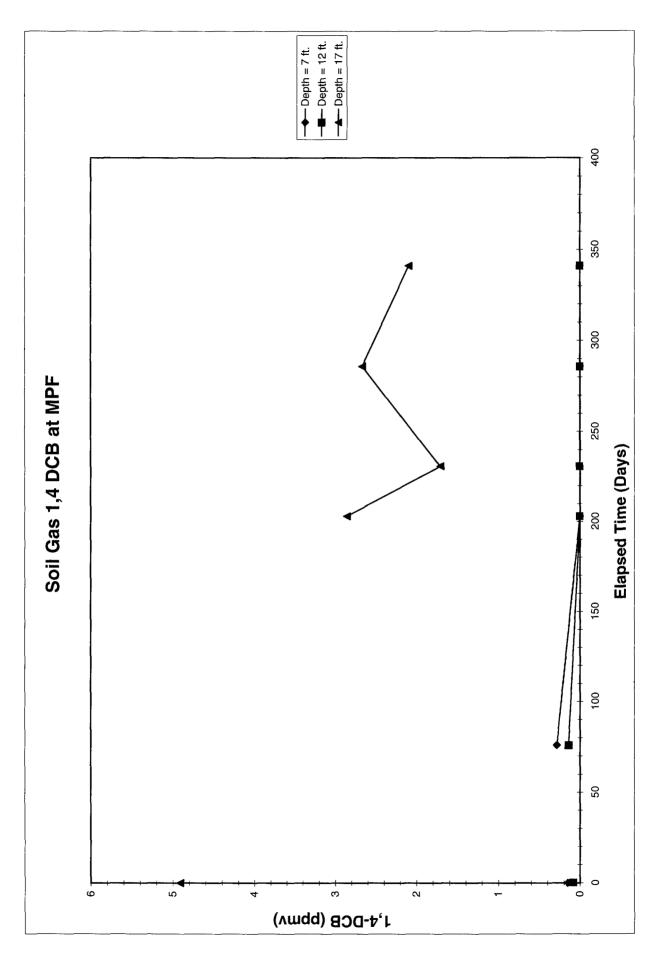


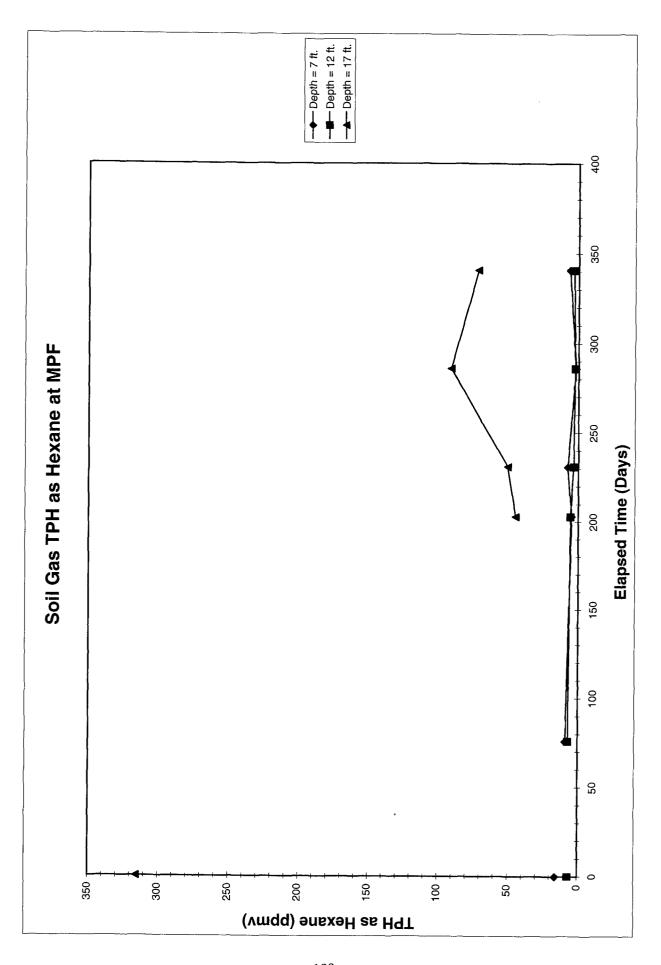


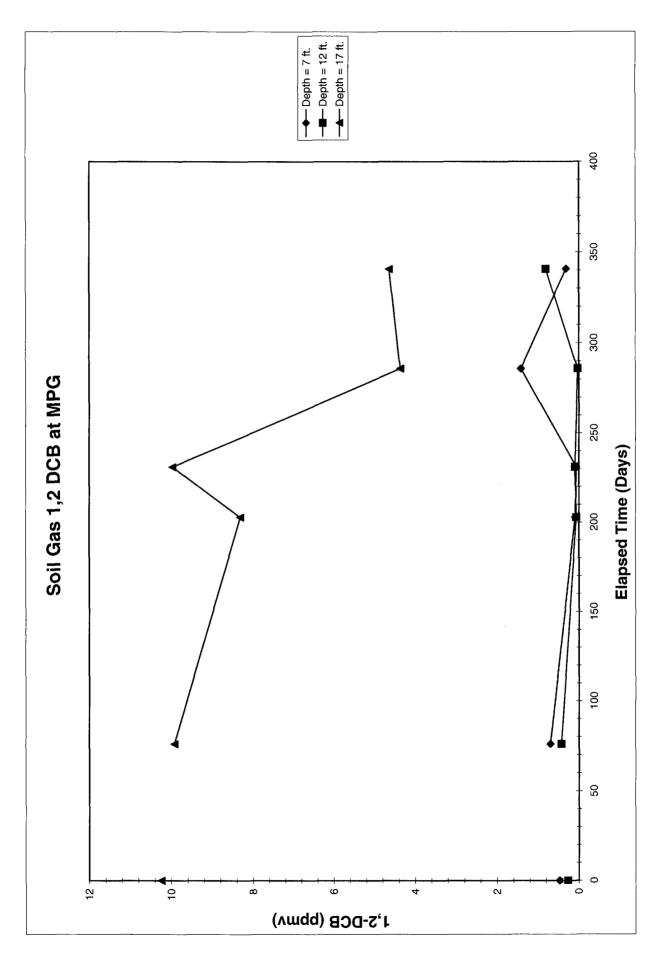


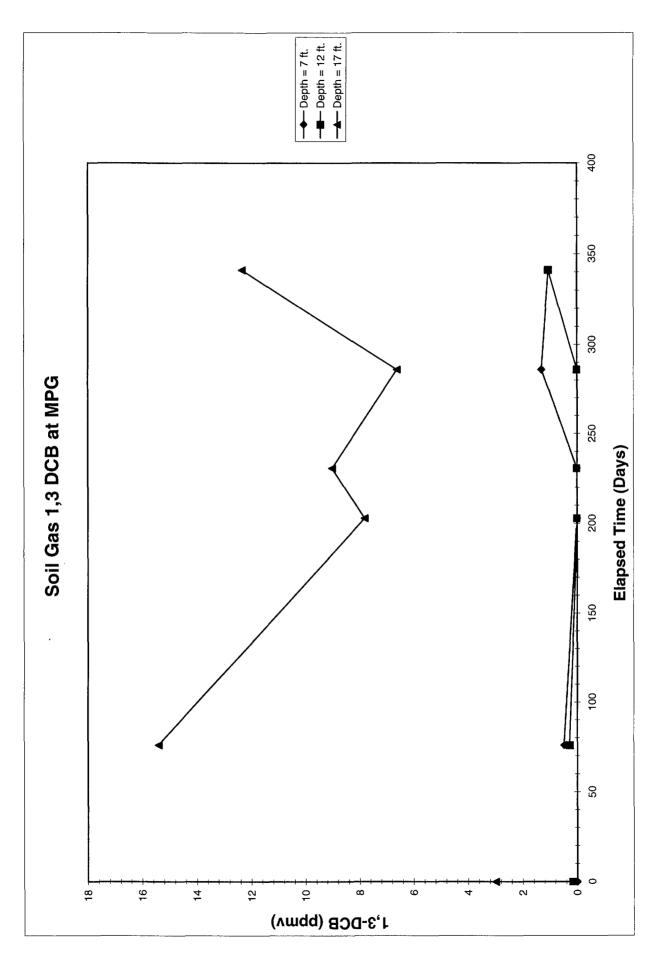


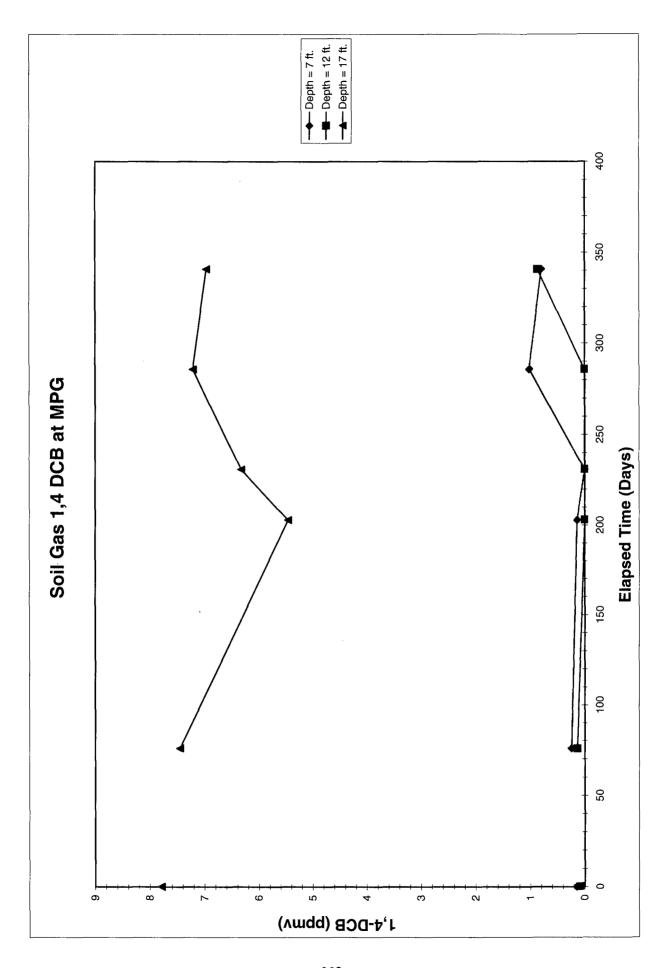


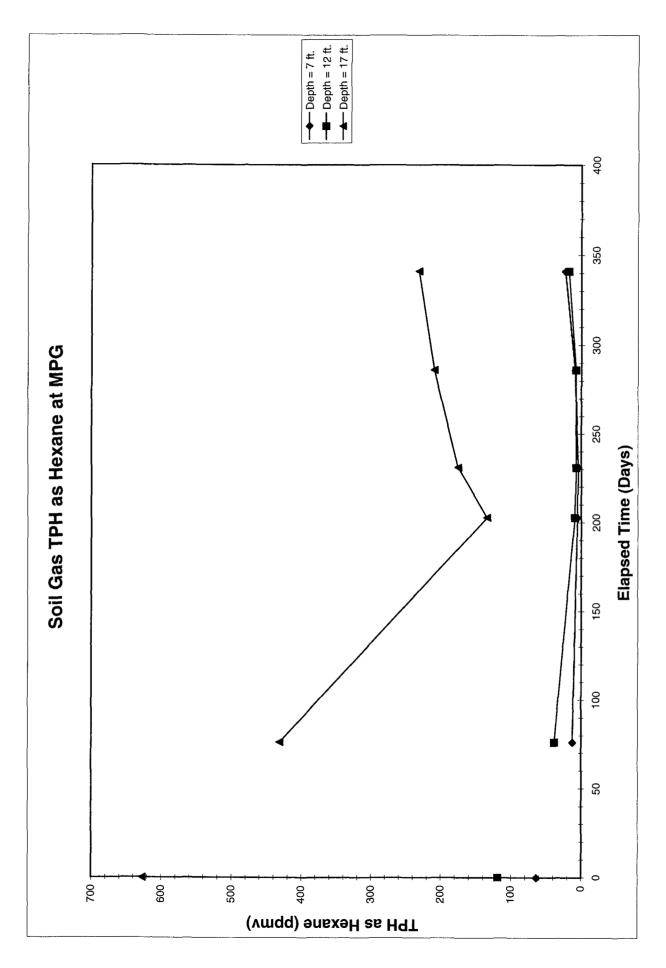


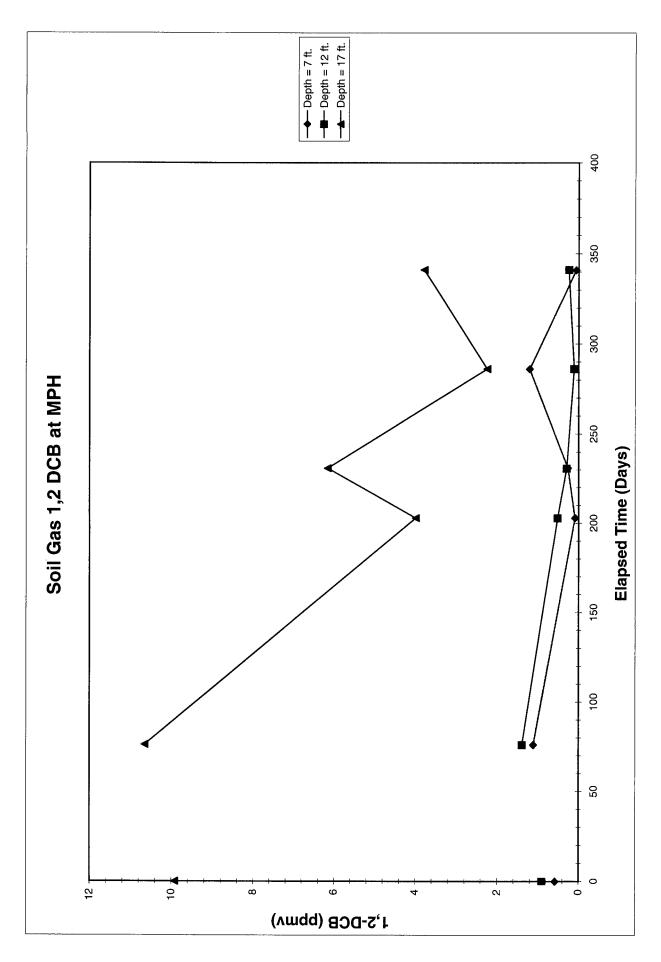


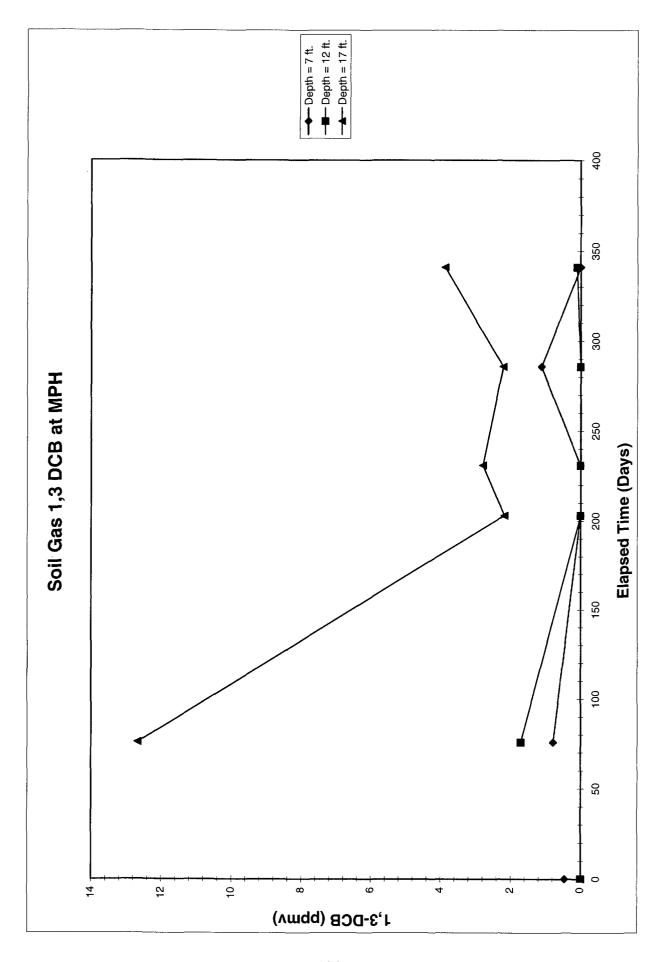


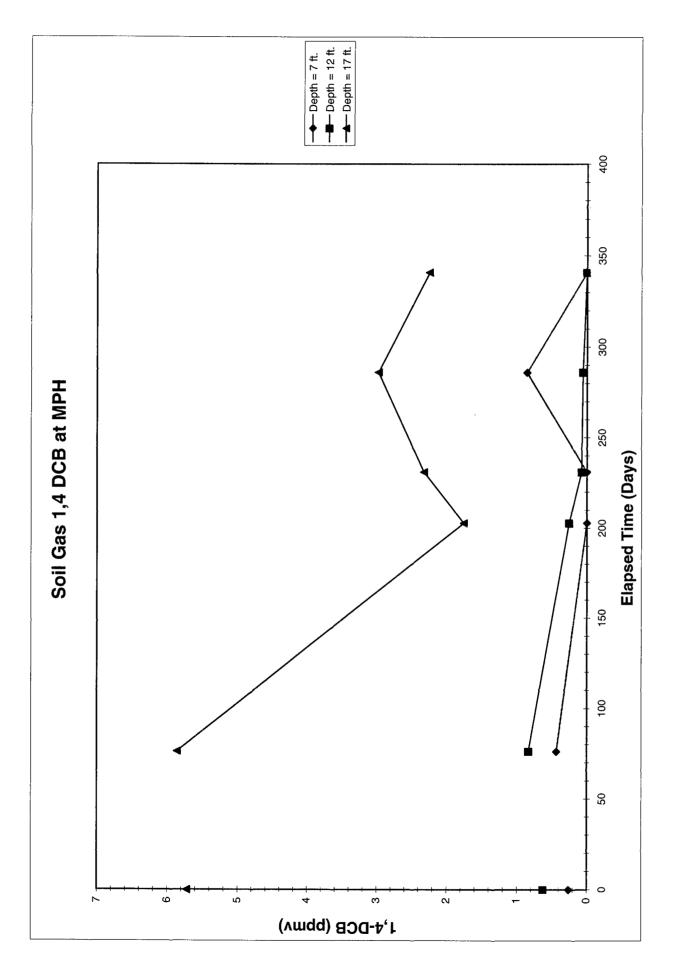


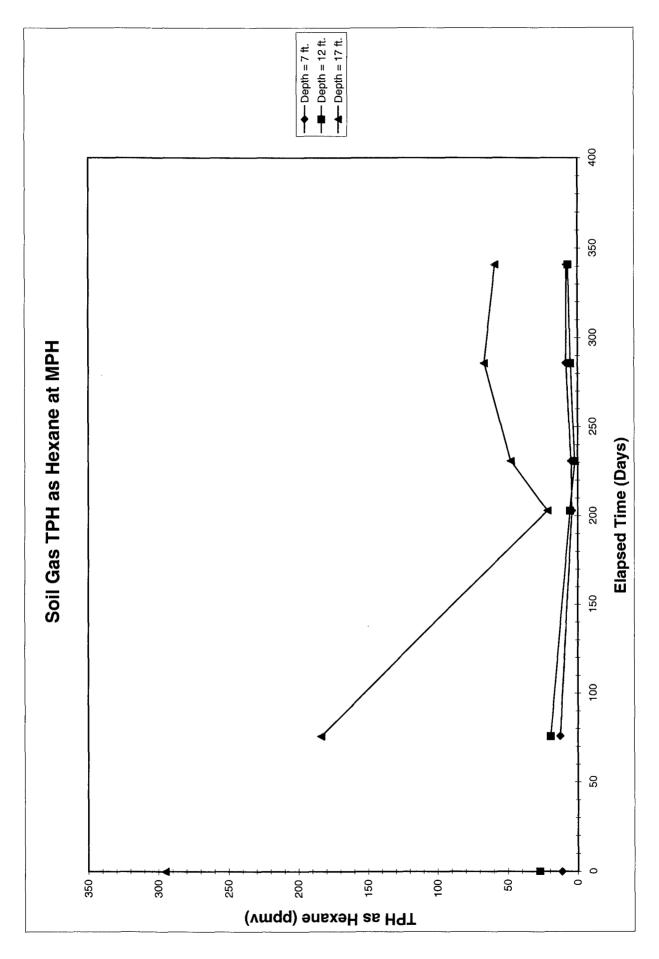


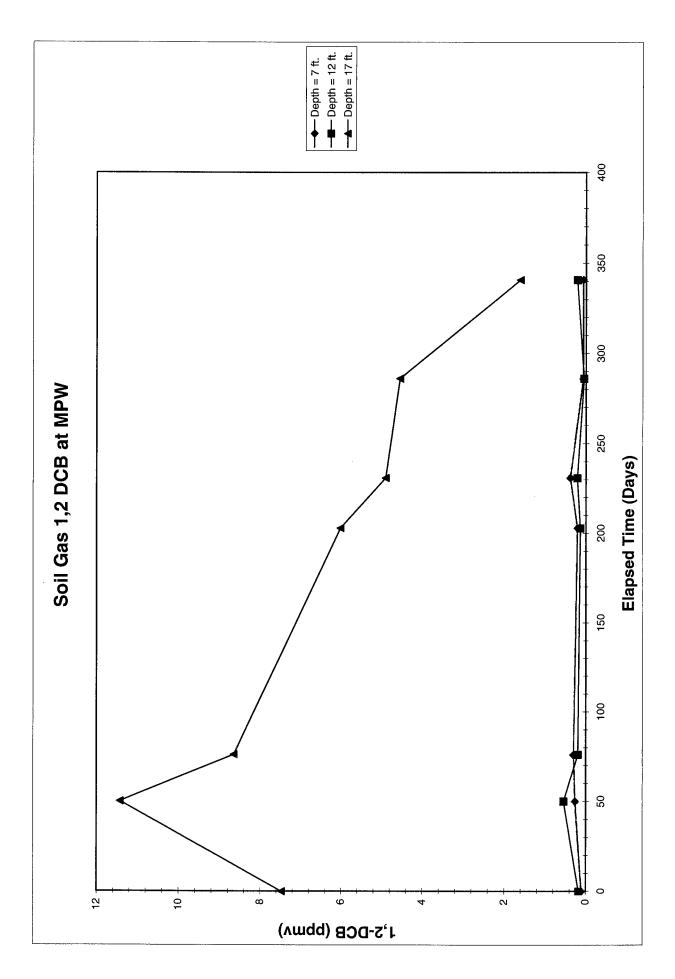


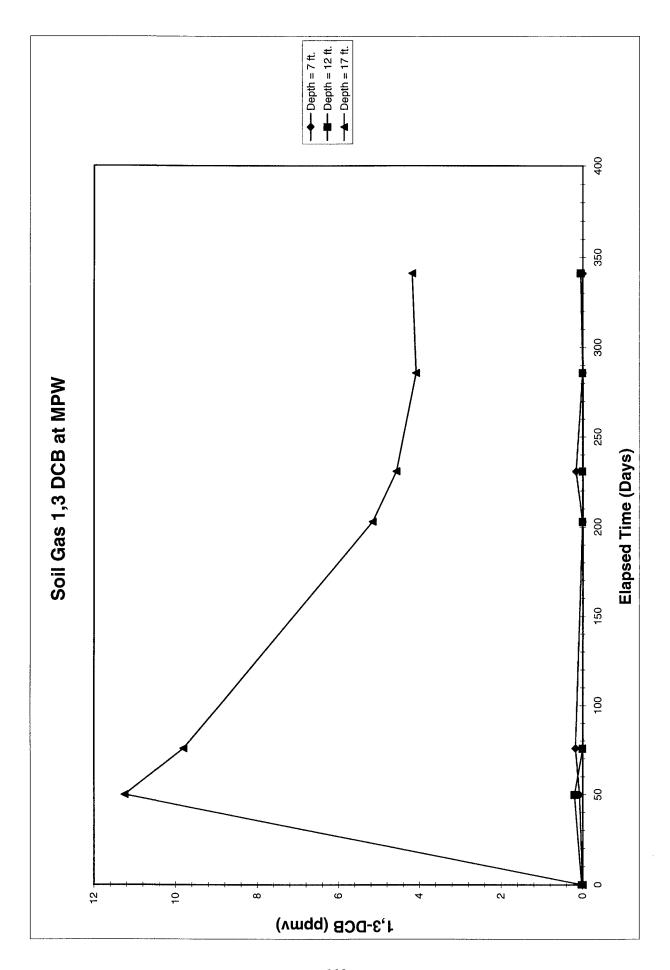


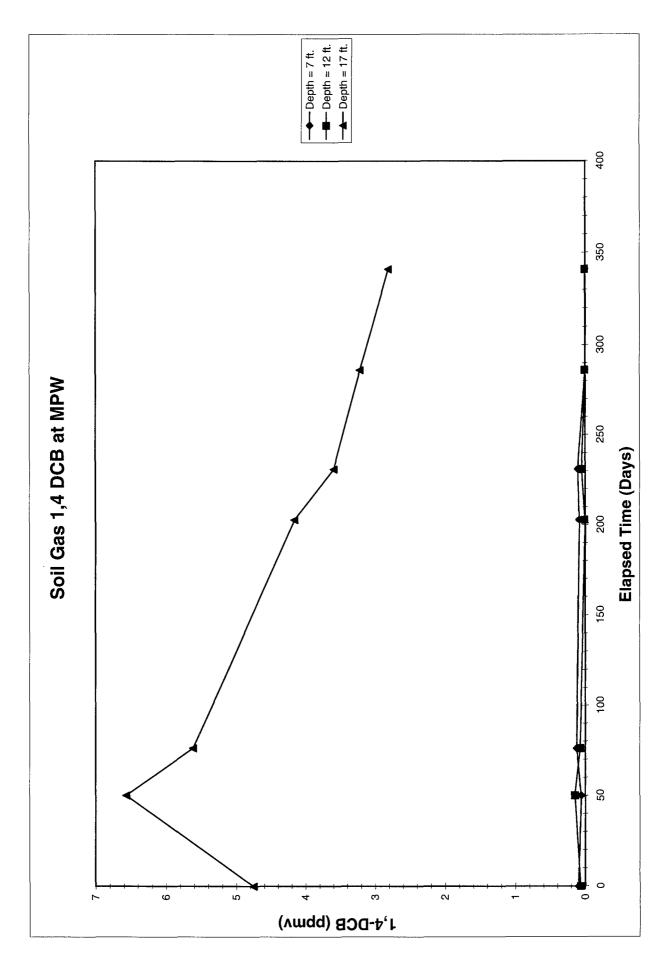


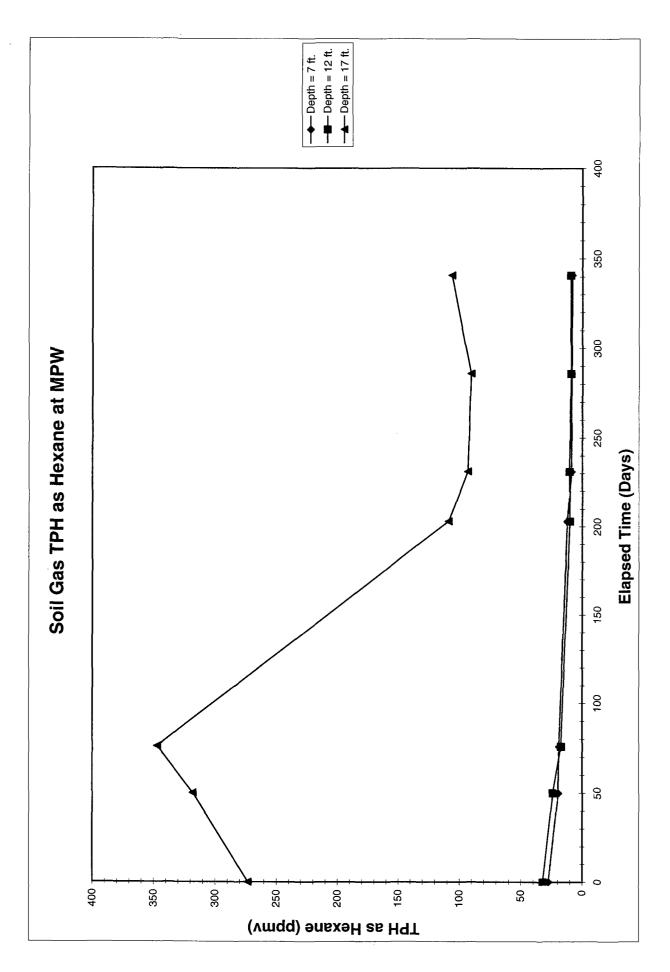


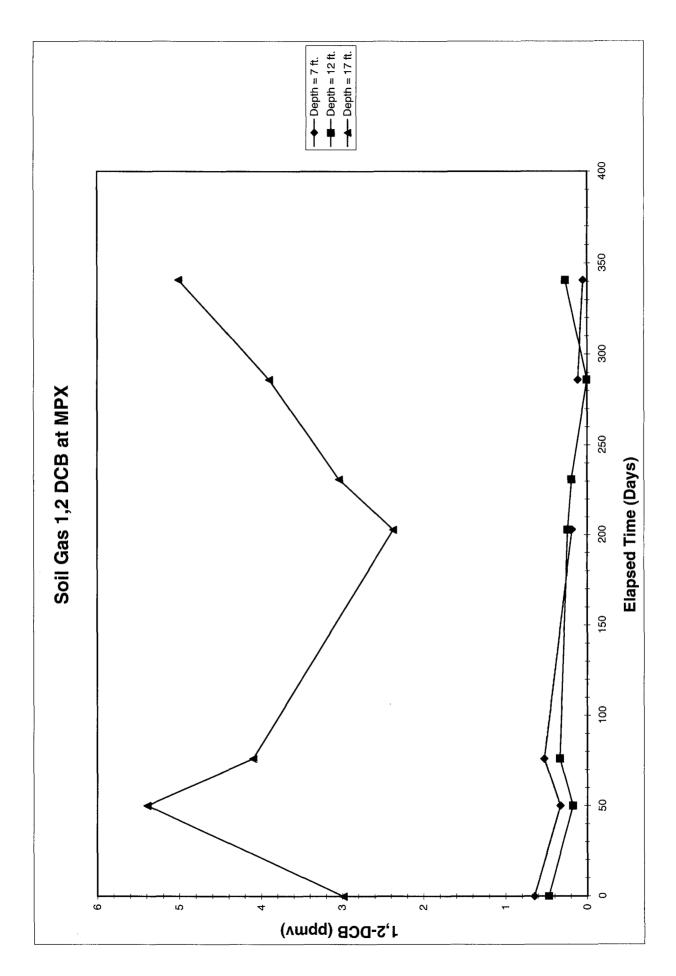


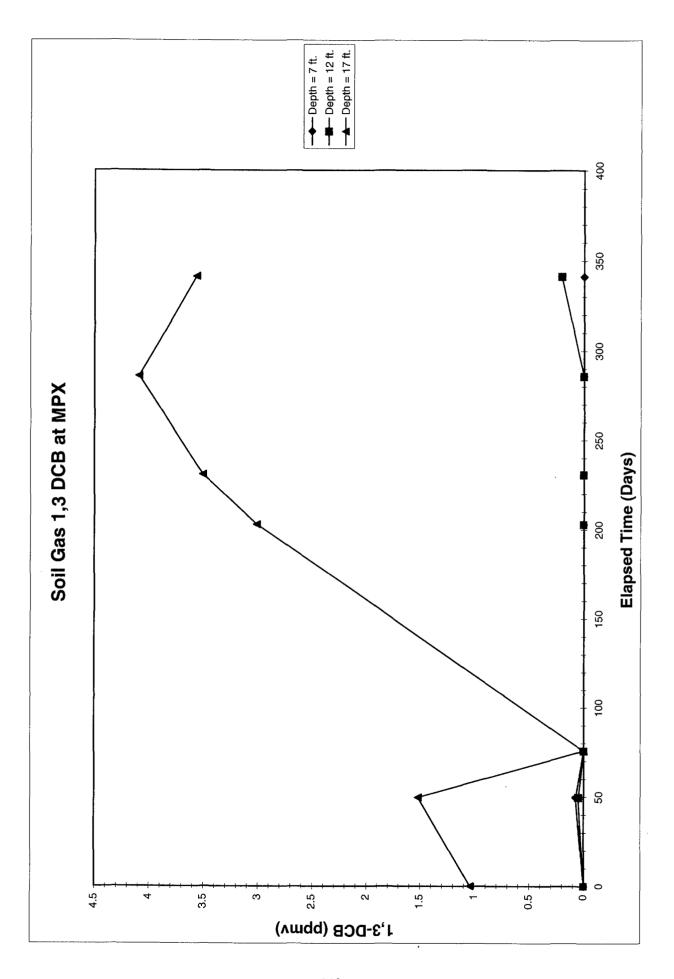


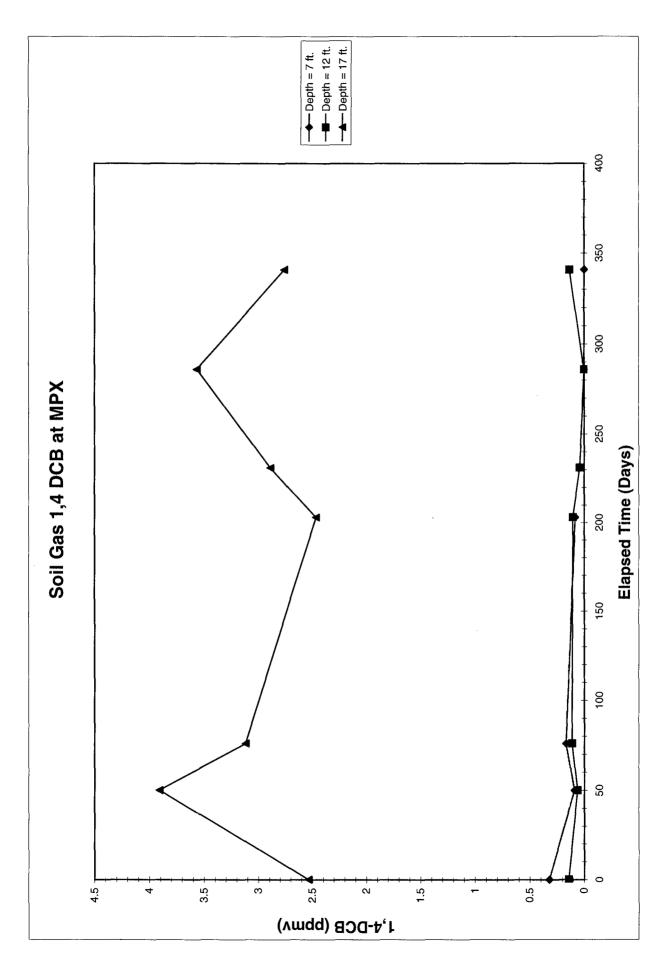


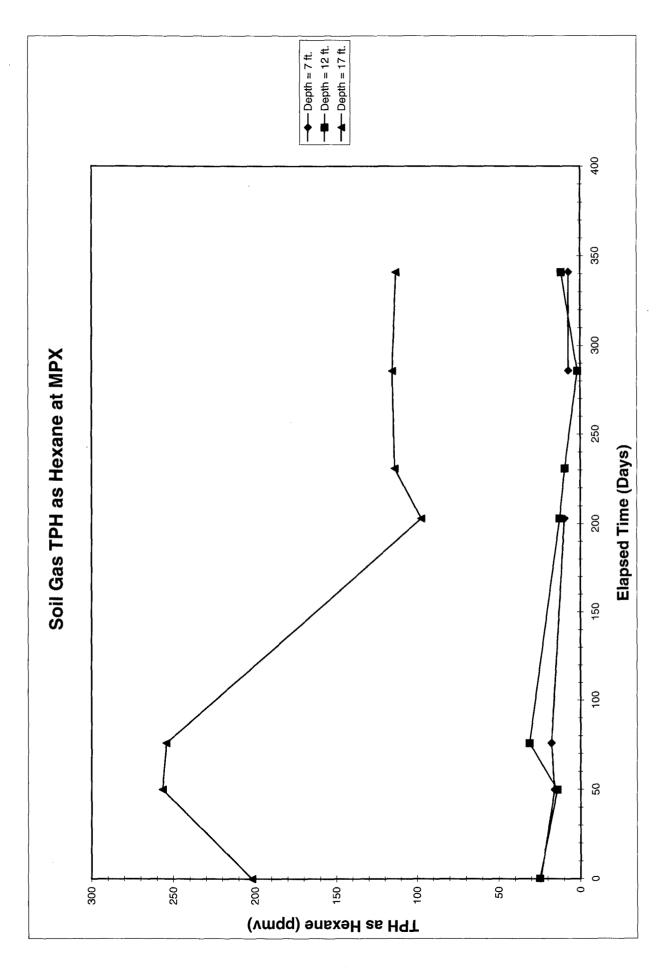


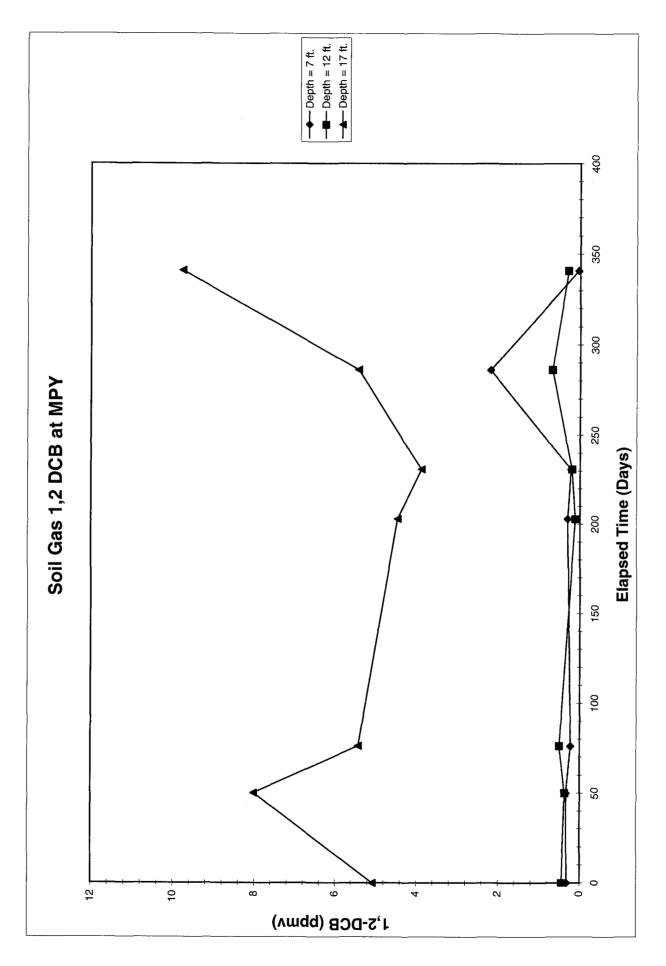


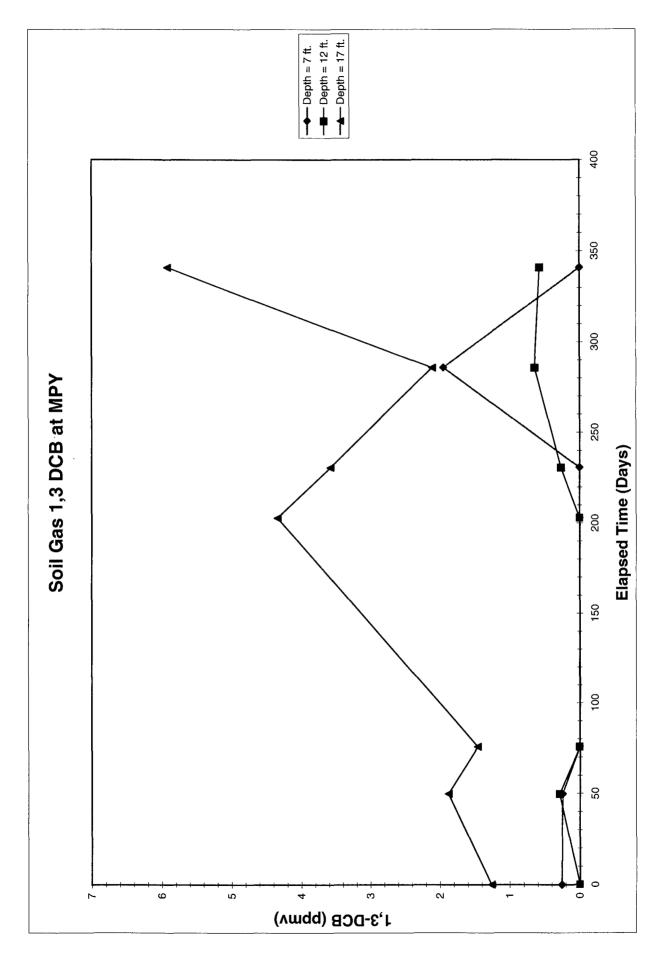


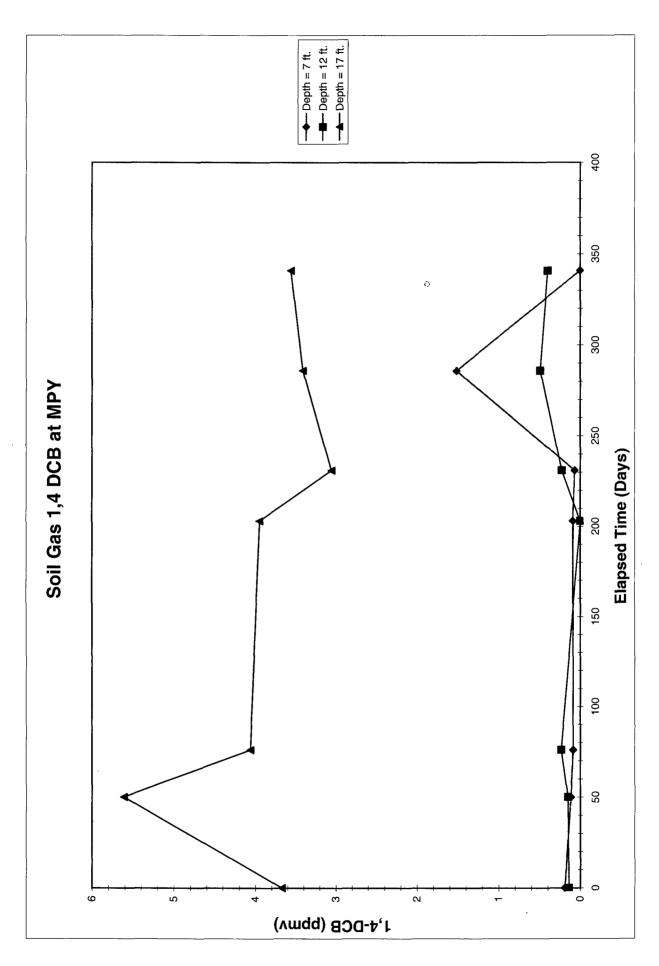


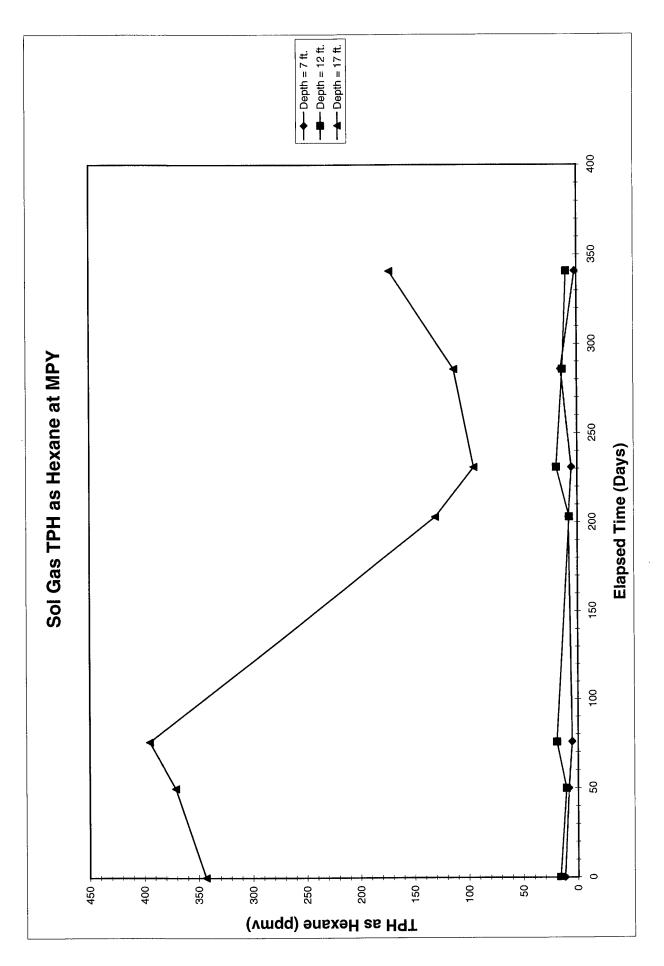


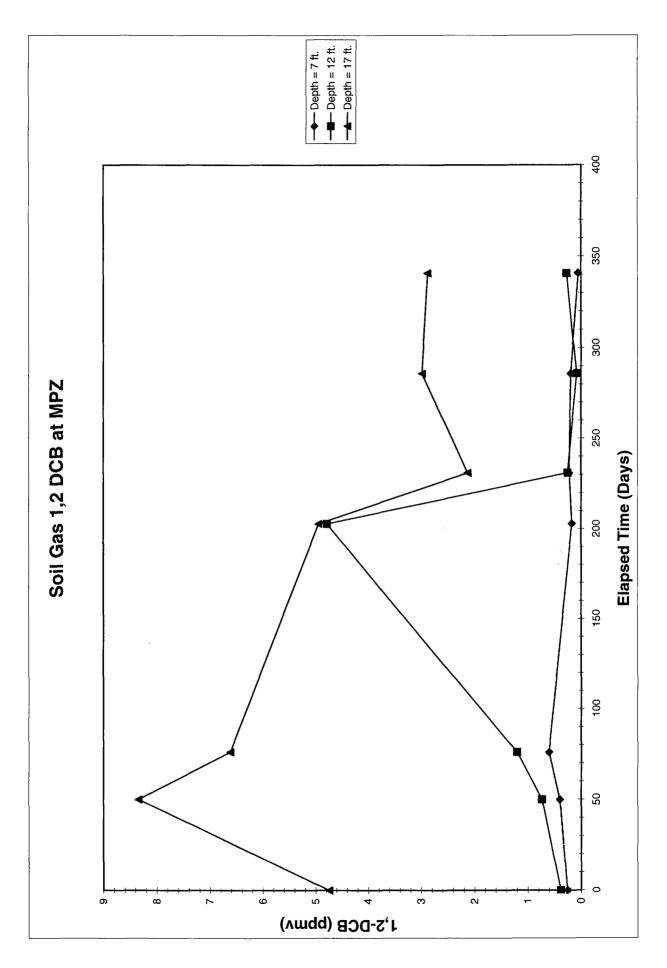


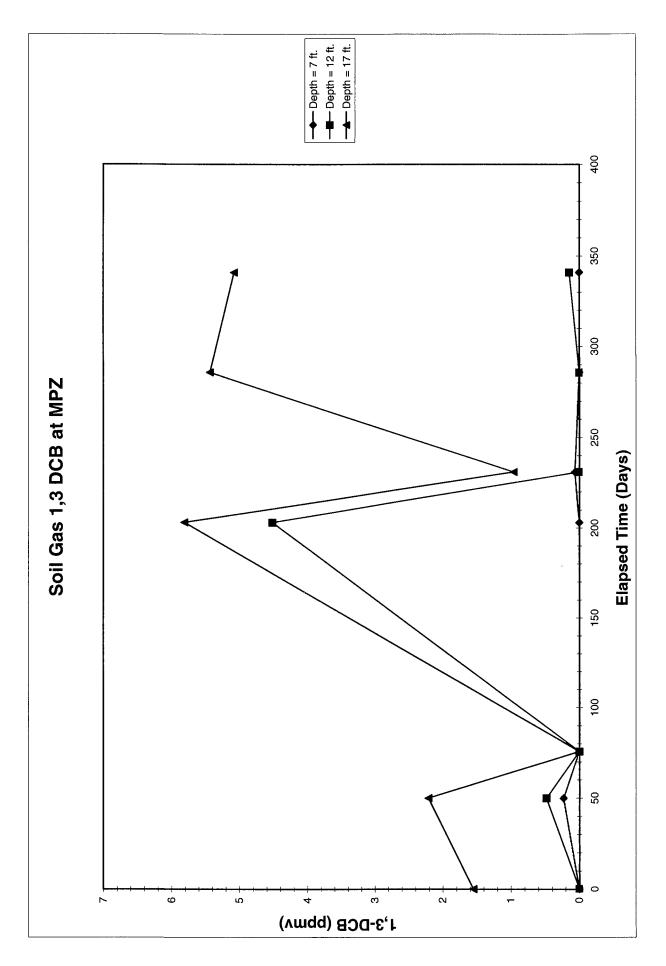


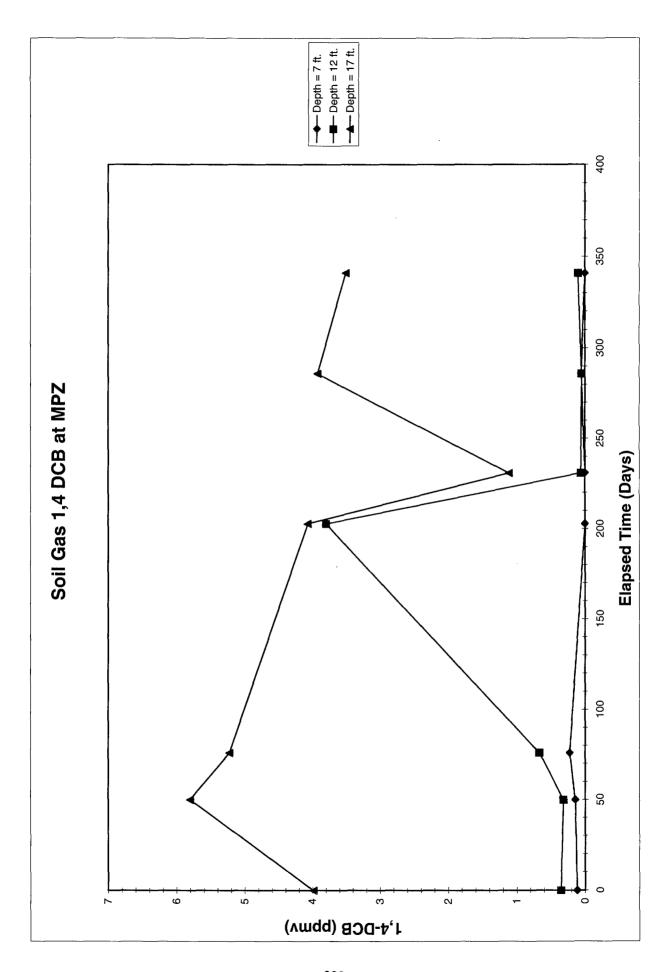


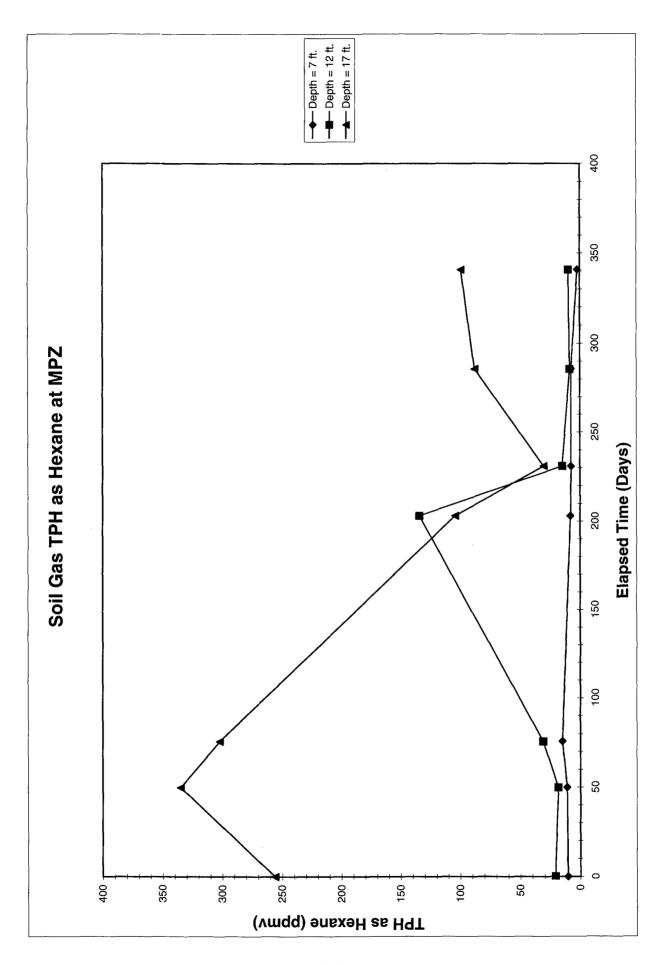












RESPIRATION TEST DATA

and

LINEAR REGRESSION RESULTS

July 1997

October 1997

January 1998

April 1998

August 1998

RESPIRATION TEST DATA

and

LINEAR REGRESSION RESULTS

July 1997

SUMMARY OUTPUT

MPA 7 ft bgs Regression of linear portion of Oxygen versus time plot

Regression Statistics	tistics	
Multiple R	0.998	
R Square	0.997	
Adjusted R Square	966.0	
Standard Error	0.065	
Observations	7	

ANOVA

df	SS	MS	F	Significance F
1	6.77	6.77	1621	1.78E-07
2	0.02	0.0042		
9	6.79			

otal	9	6.79						
	Conficients	Program Program	7070 7	0.10.10	7020 20110 1	112202050	1 000 DE 001	11 20 20 0E 00/
	Coefficients	Standard Ellor I Stat P-Value	। अवा	r-value	TOWER 95%	orpher 95%	Upper 95% Lower 95.0% Upper 95.0%	Opper 95.0%
ntercept	5.6	0.0689	80.95	5.45E-09	5.40	5.76	5.40	5.76
Variable 1	-2.8	0.0703	-40.26	-40.26 1.78E-07	-3.01	-2.65	-3.01	-2.65

SUMMARY OUTPUT

MPA 12 ft bgs Regression of linear portion of Oxygen versus time plot

S	0.998	0.997	966.0	0.151	80
Regression Statistics	Multiple R 0.	R Square 0.9	र Square	Standard Error 0.	Observations

ANOVA				
	df	SS	WS	
Regression	-	40.22	40.224	1
Residual	9	0.14	0.023	
Total	7	40.36		

Significance F 1.21E-08

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	5 Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	12.7	0.152	83.55	83.55 1.98E-10	12.30	13.05	12.30	13.05
X Variable 1	-6.1	0.144	-42.07	-42.07 1.21E-08	-6.43	-5.72	-6.43	-5.72

-3.21	-3.51	-3.21	-3.51	-48.76 4.15E-16	-48.76	0.07	-3.36	X Variable 1
17.54	17.13	17.54	17.13	180.72 1.72E-23	180.72	0.10	17.33	Intercept
Upper 95.0%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95%	Lower 95%	P-value	t Stat	Standard Error t Stat P-value	Coefficients	
						82.98	14	Total
					0.035	0.45	13	Residual
			4.15E-16	82.526 2377.59	82.526	82.53	_	Regression
			Significance F	F	SW	SS	df	
								ANOVA
							15	Observations
							0.186	Standard Error
							0.994	Adjusted R Square
							0.995	R Square
							0.997	Multiple R
								Regression Statistics

SUMMARY OUTPUT

MPB 12 ft bgs Regression of linear portion of Oxygen versus time plot

	0.997	0.995	Adjusted R Square 0.994	0.220	11
sion Statistics					

	Significance F	1.4726E-11			
	F	1693			
	MS	82.199	0.049		
	SS	82.20	0.44	82.64	
	df	1	တ	10	
ANOVA		Regression	Residual	Total	

Upper 95% Lower 95.0% Upper 95.0% 18.41 17.74 18.41	
Lower 95% 17.74	7 2 2
t Stat P-value 121.21 8.99E-16	44 46 4 470 44
<i>t Stat</i> 121.21	44.45
Standard Error t Stat P-value 0.15 121.21 8.99E-16	270
Coefficients 18.08	30 3
Intercept	V Vorioble 4

20000					
Я	0.978				
are	0.956				
Square					
I Error	0.273				
Observations	12				
ANOVA					
	đf	SS	MS	F	Significance F
Regression	-	16.025	16.025 215.3	215.3	4.32455E-08
Residual	10	0.744	0.074		
Total	7	16.769			

X Variable 1 Intercept

Upper 95.0% 12.28 -1.85

Upper 95% Lower 95.0%

Lower 95% 11.26 -2.52

Standard Error t Stat P-value

Coefficients 11.77

11.26 -2.52

12.28 -1.85

51.28 1.92E-13 -14.67 4.32E-08

0.23 0.15

SUMMARY OUTPUT

MPC 12 ft bgs Regression of linear portion of Oxygen versus time plot

	Regression Statistics							
Multiple R	0.999							
R Square	0.997							
Adjusted R Square	966.0							
Standard Error	0.147							
Observations	4							
ANOVA								
	df	SS	MS	Ā	Significance F			
Regression	-	15.90	15.897	732.7	1.36E-03			
Residual	2	0.04	0.022					
Total	3	15.94						
	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	13.00	0.14	93.39	93.39 1.15E-04	12.40	13.59	12.40	13.59
X Variable 1	-12.91	0.48	-27.07	-27.07 1.36E-03	-14.96	-10.86	-14.96	-10.86

SUMMARY OUTPUT

MPD 7 ft bgs Regression of linear portion of Oxygen versus time plot

ı	000				
	0.993				
	0.986				
	0.985				
	0.426				
	26				
	df	SS	SW	Ŧ	Significance F
	-	305.83	305.834	1688.7	9.30E-24
	24	4.35	0.181		

	Coefficients	Standard Error	t Stat	t Stat P-value	Lower 95%	Upper 95%	Lower 95.0%	Lower 95.0% Upper 95.0%
Intercept	20.81	0.17	124.87	124.87 2.80E-35	20.46	21.15	20.46	21.15
X Variable 1	-2.92	0.07	-41.09	9.30E-24	-3.07	-2.78	-3.07	-2.78

310.18

25

Total

SUMMARY OUTPUT

MPD 12 ft bgs Regression of linear portion of Oxygen versus time plot

Regression Statistics					
Multiple R	0.998				
R Square	0.995				
Adjusted R Square	0.995				
Standard Error	0.362				
Observations	24				
ANOVA					
	df	SS	MS	щ	Significance F
Regression	_	577.53	577.532 4400.7	4400.7	7.78E-27
Residual	22	2.89	0.131		
Total	23	580.42			

Lower 95.0% Upper 95.0%

Upper 95% 21.27 -4.53

Lower 95% 20.65 -4.82

P-value

t Stat

Standard Error 0.15 0.07

Coefficients 20.96 -4.68

139.46 6.45E-34 -66.34 7.78E-27

21.27

20.65

SUMMARY OUTPUT

MPD 17 ft bgs Regression of linear portion of Oxygen versus time plot

egression Statistics					
Multiple R	0.999				
R Square	0.999				
Adjusted R Square	0.999				
Standard Error	0.213				
Observations	10				
ANOVA					
	df	SS	MS	F	Significance F
Regression	_	315.80	315.796	6933.6	4.83E-13
Residual	∞	0.36	0.046		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0%	Upper 95.0%
Intercept	18.23	0.13	139.38	139.38 7.85E-15	17.93	18.53	17.93	18.53
X Variable 1	-11.70	0.14	-83.27	-83.27 4.83E-13	-12.02	-11.38	-12.02	-11.38

316.16

6

Total

SUMMARY OUTPUT

MPE 7 ft bgs Regression of linear portion of Oxygen versus time plot

							Significance F	2.55E-14		
							F	638.1		
							MS	98.371	0.154	
							SS	98.37	2.47	100.84
	0.988	0.976	0.974	0.393	18		df	1	16	17
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

Respiration Test July 1997

Upper 95.0%

Upper 95% Lower 95.0% 14.75 13.89 -2.70 -3.19

Lower 95% 13.89 -3.19

t Stat P-value 70.00 2.48E-21 -25.26 2.55E-14

 Coefficients
 Standard Error

 14.32
 0.20

 -2.94
 0.12

SUMMARY OUTPUT

MPE 12 ft bgs Regression of linear portion of Oxygen versus time plot

							l.	1		
							Significance F	1.75E-10		
							F	78.896 3008.8		
							MS	78.896	0.026	
							SS	78.90	0.18	79.08
	0.999	0.998	0.997	0.162	6		df	-	7	œ
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

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Upper 95.0% 15.43 -6.27

Lower 95.0% 14.95 -6.83

Upper 95% 15.43 -6.27

Lower 95% 14.95 -6.83

t Stat P-value 147.97 1.70E-13 -54.85 1.75E-10

Standard Error 0.10 0.12

Coefficients 15.19 -6.55

SUMMARY OUTPUT

MPF 7 ft bgs Regression of linear portion of Oxygen versus time plot

	0.988	0.975	0.974	0.468	26
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

¢					
4	Significance F	8.41E-21			
	F	947.6			
	SW	207.718	0.219		
	SS	207.72	5.26	212.98	
	φ	1	24	25	
ANOVA		Regression	Residual	Total	

	Coefficients	Standard Error	t Stat F	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.78	0.18	107.44	107.44 1.03E-33	19.40	20.16	19.40	20.16
X Variable 1	-2.41	80.0	-30.78	-30.78 8.41E-21	-2.57	-2.25	-2.57	-2.25

SUMMARY OUTPUT

MPF 12 ft bgs Regression of linear portion of Oxygen versus time plot

							Significance F	9.28E-28		
							F	5343.7		
							MS	447.106 5343.7	0.084	
							SS	447.11	1.84	448.95
	0.998	966.0	966.0	0.289	24		df	1	22	23
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

Upper 95.0% 20.34 -4.00

19.84 -4.23

20.34

P-value 1.28E-35 9.28E-28

t Stat 166.71 -73.10

Coefficients Standard Error 20.09 0.12 -4.12 0.06

Upper 95% Lower 95.0%

Lower 95% 19.84 -4.23

SUMMARY OUTPUT

MPF 17 ft bgs Regression of linear portion of Oxygen versus time plot

Regression Statistics								
Multiple R	0.993							
R Square	0.986							
Adjusted R Square	0.983							
Standard Error	0.294							
Observations	8							
ANOVA								
	df	SS	MS	Ŧ	Significance F			
Regression		36.16	36.156	417.9	8.91E-07			
Residual	9	0.52	0.087					
Total	7	36.68						
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	<i>Upper</i> 95.0%
Intercept	12.72	0.23	54.77	54.77 2.49E-09	12.15	13.29	12.15	13.29
X Variable 1	-5.18	0.25	-20.44	-20.44 8.91E-07	-5.80	-4.56	-5.80	-4.56

SUMMARY OUTPUT

MPG 7 ft bgs Regression of linear portion of Oxygen versus time plot

on Statistics
Multiple R 0.990
Adjusted R Square 0.979
Observations 28

	Significance F	1.25E-23			
	F	1276.7			
	MS	68.232 1276.7	0.053		
	SS	68.23	1.39	69.62	
	df	1	26	27	
ANONIA		Regression	Residual	Total	

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
pt	12.16	80.0	146.25	146.25 1.93E-39	11.99	12.33	11.99	12.33
ole 1	-1.31	0.04	-35.73	-35.73 1.25E-23	-1.39	-1.24	-1.39	-1.24

SUMMARY OUTPUT

MPG 12 ft bgs Regression of linear portion of Oxygen versus time plot

	_							
0.958								
0.918								
0.914								
0.363								
27								
df		SS	MS	F	Significance F			
-	Į	36.69	36.686	278.6	4.59E-15			
25		3.29	0.132				٠	
56	Į	39.98						
Coefficients		ts Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
7.19		0.14	52.17	52.17 4.90E-27	6.91	7.47	6.91	7.47
-1.00		90.0	-16.69	-16.69 4.59E-15	-1.12	-0.88	-1.12	-0.88

SUMMARY OUTPUT

MPH 7 ft bgs Regression of linear portion of Oxygen versus time plot

/00 20	Opper 95.0%	21.35	-2.34
700 10	Lower 95.0% Upper 95.0%	20.40	-2.75
7010	Upper 95%	21.35	-2.34
7010	Lower 95%	20.40	-2.75
	r-value	90.69 5.94E-32	-25.87 4.85E-19
	r Star	69.06	-25.87
L	Standard Error t Stat P-value	0.23	0.10
3	Coefficients	20.88	-2.55
		Intercept	X Variable 1

Significance F 4.85E-19

669.3

231.973 0.347

SS 231.97 8.32 240.29

> 1 24 25

Regression Residual Total

ďf

ole R 0.998
Multiple R 0.998

	Significance F	6.75E-25		
	F	4373.0		
	MS	345.754 4373.0	0.079	
:	SS	345.75	1.58	347.34
	df	-	20	21
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.57	0.14	146.14	146.14 9.06E-32	20.28	20.87	20.28	20.87
X Variable 1	-4.19	90.0	-66.13	-66.13 6.75E-25	-4.32	-4.06	-4.32	-4.06

SUMMARY OUTPUT

MPH 17 ft bgs Regression of linear portion of Oxygen versus time plot

Regression Statistics					
Multiple R	0.999				
R Square	0.997				
Adjusted R Square	0.997				
Standard Error	0.278				
Observations	1				
ANOVA					
	df	SS	MS	ı,	Significance F
Regression	-	267.32	267.324 3456.5	3456.5	6.00E-13
Residual	6	0.70	0.077		
Total	9	268.02			

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95% Lower 95.0% Upper 95.0%
Intercept	17.45	0.17	103.04	103.04 3.88E-15	17.07	17.84	17.07	17.84
X Variable 1	-10.73	0.18	-58.79	-58.79 6.00E-13	-11.14	-10.32	-11.14	-10.32

MPA 12 ft bgs				
Shut off Blower 7/17/1997 9:33:00 AM				
Time	,			
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.08	11.2	7.3	400	
0.17	11.0	7.5	435	
0.32	10.7	7.5	410	
0.48	9.8	7.8	350	
0.95	7.1	9.2	460	
1.03	6.3	9.8	480	
1.13	5.8	10.0	560	
1.23	5.0	10.1	620	
1.27	5.0	10.5	620	
1.46	3.9	11.0	550	
1.54	4.0	10.8	625	
1.96	2.5	12.0	520	
2.04	2.6	12.0	680	
2.18	1.8	12.3	500	
2.27	1.8	12.8	510	
2.39	1.8	12.4	625	
2.46	1.5	12.8	650	
2.54	1.3	12.9	620	
2.95	8.0	15.0	720	
3.08	0.6	14.1	NT	
3.19	0.4	14.1	NT	
3.29	0.3	14.5	NT	
3.42	0.1	14.9	NT	
3.49	0.1	15.1	NT	
3.94	0.9	15.1	NT	
4.30	0.5	15.6	NT	

MPA 17 ft bgs				
Shut off Blower 7/17/1997 9:33:00 AM				
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.08	0.1	18.0	760	
0.17	0.0	18.9	720	
0.32	1.0	16.9	770	
0.48	1.0	16.9	680	
0.96	1.3	16.0	760	
0.96	0.4	18.1	805	
1.03	0.8	17.7	800	
1.13	0.4	16.1	930	
1.23	0.1	17.9	1000	
1.30	0.0	18.3	1000	
1.46	0.0	17.9	940	
1.54	0.2	16.9	990	
1.96	0.2	16.8	820	
2.05	0.0	16.9	1000	
2.18	0.0	16.2	805	
2.27	0.0	16.4	800	
2.39	0.1	16.0	935	
2.46	0.0	16.2	950	
2.54	0.0	16.2	970	
2.95	0.0	17.6	1200	
3.08	0.1	16.8	NT	
3.19	0.2	16.1	NT	
3.29	0.0	16.4	NT	
3.42	0.0	17.0	NT	
3.49	0.0	17.0	NT	
3.94	0.4	16.5	- NT	
4.30	0.0	17.0	NT	

	MPA 7 ft bgs			
	Blower 7/1	7/1997 9:3	3:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.08	4.8	19.8	470	
0.16	4.3	13.0	450	
0.32	4.7	12.2	475	
0.48	4.2	12.5	425	
0.95	2.9	14.0	495	
1.03	2.7	14.1	520	
1.13	2.4	14.0	590	
1.23	2.0	14.8	670	
1.30	2.0	14.8	670	
1.46	0.9	15.1	590	
1.54	1.9	14.5	650	
1.96	1.0	15.1	475	
2.04	1.0	15.1	680	
2.17	0.9	15.1	520	
2.27	1.0	15.1	520	
2.39	1.0	15.0	625	
2.46	1.2	15.0	645	
2.54	8.0	15.9	625	
2.95	0.5	17.0	715	
3.08	0.2	16.8	NT	
3.19	0.4	16.1	NT	
3.29	0.1	16.5	NT	
3.42	0.0	17.1	NT	
3.49	0.0	17.8	NT	
3.94	0.4	17.1	NT	
4.30	0.0	18.1	NT	

	MPB 12 ft bgs			
Shut off	Shut off Blower 7/17/1997 9:33:00 AM			
Time				
Elapsed,		!	TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.07	17.3	2.8	195	
0.16	17.2	3.0	195	
0.31	16.5	3.1	200	
0.48	15.8	3.3	160	
0.95	13.1	4.5	285	
1.02	12.6	4.7	295	
1.12	12.1	4.8	350	
1.22	11.5	5.0	405	
1.29	11.4	5.1	405	
1.46	10.0	5.8	370	
1.54	10.0	5.7	445	
1.95	8.2	6.6	365	
2.04	8.1	6.6	520	
2.17	7.1	7.0	390	
2.27	7.0	7.1	380	
2.38	6.6	7.1	480	
2.46	6.5	7.2	520	
2.54	6.1	7.5	485	
2.95	4.9	9.0	590	
3.07	4.5	8.9	NT	
3.18	4.2	8.9	NT	
3.28	4.2	8.9	NT	
3.42	3.8	9.2	NT	
3.49	3.5	9.6	NT	
3.94	3.1	10.1	NT	
4.29	8.0	8.1	NT	

MPB 17 ft bgs				
	Shut off Blower 7/17/1997 9:33:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.07	2.5	11.9	650	
0.16	2.1	12.2	630	
0.31	2.1	12.1	660	
0.48	1.8	12.7	605	
0.95	1.5	13.8	690	
1.02	0.9	14.2	720	
1.12	0.9	14.0	810	
1.23	0.1	14.8	910	
1.30	0.0	15.0	910	
1.46	0.0	15.0	835	
1.54	0.1	14.2	870	
1.96	0.0	14.4	730	
2.04	0.1	14.2	905	
2.17	0.1	14.0	730	
2.27	0.0	14.1	720	
2.39	0.6	13.5	835	
2.46	0.0	14.0	855	
2.54	0.0	14.1	865	
2.95	0.0	15.1	960	
3.08	0.1	14.3	NT	
3.18	0.0	14.1	NT	
3.29	0.2	14.0	NT	
3.42	0.0	14.5	NT	
3.49	0.0	15.0	NT	
3.94	0.7	14.1	NT	
4.29	0.0	15.0	NT	

	MPB 7 ft bgs				
Shut off	Shut off Blower 7/17/1997 9:33:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.07	17.1	3.4	220		
0.16	16.9	3.7	230		
0.31	16.3	3.8	240		
0.48	16.0	3.9	200		
0.95	14.2	4.9	285		
1.02	13.8	5.0	300		
1.12	13.4	5.0	360		
1.22	13.0	5.2	405		
1.29	13.0	5.3	410		
1.46	12.1	5.8	370		
1.54	12.0	5.7	430		
1.95	11.0	6.2	340		
2.04	10.5	6.4	500		
2.17	10.0	6.4	355		
2.27	10.0	6.6	345		
2.38	10.0	6.3	440		
2.46	10.0	6.4	460		
2.53	9.2	6.9	440		
2.95	8.0	7.9	530		
3.07	7.5	15.5	NT		
3.18	7.4	7.8	NT		
3.28	7.2	7.8	NT		
3.42	6.9	8.1	NT		
3.49	6.8	8.5	NT		
3.93	6.0	8.8	NT		
4.29	5.9	9.1	NT		

	MPC 12 ft bgs			
Shut off		17/1997 9:3	33:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.06	12.3	7.1	330	
0.15	10.9	7.9	330	
0.30	9.0	9.0	370	
0.47	7.0	10.7	400	
0.94	6.1	11.5	410	
1.01	6.0	11.8	440	
1.11	5.2	11.9	520	
1.22	4.1	12.9	510	
1.28	3.9	13.1	605	
1.45	2.9	13.8	500	
1.53	3.4	13.0	580	
1.94	3.6	13.0	445	
2.03	3.5	13.1	565	
2.16	2.8	13.7	470	
2.26	2.2	14.0	480	
2.37	1.9	14.1	520	
2.45	1.9	14.1	580	
2.53	1.9	14.6	600	
2.94	2.2	15.1	640	
3.07	2.5	14.4	NT	
3.17	2.0	14.8	NT	
3.28	1.6	15.0	NT	
3.41	1.1	15.5	NT	
3.48	1.1	15.9	NT	
3.93	2.1	14.2	NT	
4.29	1.9	15.2	NT	

MPC 17 ft bgs				
Shut off	Shut off Blower 7/17/1997 9:33:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.07	0.3	17.2	665	
0.15	0.3	17.9	620	
0.30	1.2	16.1	645	
0.47	1.1	16.1	640	
0.94	1.1	16.8	620	
1.01	0.5	17.0	700	
1.11	0.5	16.8	800	
1.22	0.0	17.1	815	
1.28	0.0	17.4	905	
1.45	0.0	17.1	840	
1.53	0.3	16.1	840	
1.94	0.4	16.1	690	
2.03	0.1	16.2	810	
2.16	0.1	16.0	700	
2.26	0.0	16.1	725	
2.38	0.0	16.0	780	
2.45	0.0	16.0	820	
2.53	0.0	16.1	860	
2.94	0.0	17.2	920	
3.07	0.2	16.8	NT	
3.18	0.1	16.1	NT	
3.28	0.1	16.1	NT	
3.41	0.0	17.1	NT	
3.48	0.0	17.0	NT	
3.93	0.7	15.9	NT	
4.29	0.0	17.0	NT	

	MPC 7 ft bgs			
Shut off		17/1997 9:	33:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.06	10.5	10.3	440	
0.15	10.5	10.5	400	
0.30	11.0	9.8	395	
0.47	11.0	9.8	425	
0.93	10.0	10.1	375	
1.01	9.7	10.5	440	
1.11	9.2	10.2	520	
1.21	8.9	10.6	510	
1.28	8.9	10.8	590	
1.45	8.0	11.0	505	
1.52	8.3	10.5	565	
1.94	7.8	10.8	440	
2.03	7.3	11.1	555	
2.16	7.2	10.8	480	
2.26	7.0	11.0	490	
2.37	6.9	11.0	465	
2.45	7.0	10.8	565	
2.53	6.8	11.1	575	
2.94	6.1	12.0	625	
3.06	5.9	12.0	NT	
3.17	5.5	11.0	NT	
3.28	5.3	12.0	NT	
3.41	4.9	12.4	NT	
3.48	4.9	12.9	NT	
3.93	4.9	12.1	NT	
4.28	4.1	13.0	NT	

	MPD 12 ft bgs				
Shut off	Shut off Blower 7/17/1997 9:33:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.06	20.2	0.5	30		
0.15	20.2	0.6	20		
0.30	19.3	0.6	20		
0.47	19.1	0.7	10		
0.93	17.0	0.8	10		
1.01	16.9	0.9	60		
1.11	16.1	1.0	110		
1.21	15.3	1.2	80		
1.28	15.3	1.3	140		
1.44	14.0	1.7	110		
1.52	13.9	1.8	205		
1.94	12.1	2.5	115		
2.03	11.5	2.8	260		
2.16	10.5	3.1	145		
2.25	10.0	3.3	225		
2.37	9.3	3.5	205		
2.45	9.0	3.7	330		
2.52	8.6	3.9	320		
2.94	7.1	4.8	370		
3.06	6.8	4.9	NT		
3.17	6.2	5.1	NT		
3.27	6.0	5.3	NT		
3.40	5.2	5.9	NT		
3.48	5.1	6.1	NT		
3.92	4.8	6.5	NT		
4.28	10.8	5.9	NT		
4.29	11.1	5.7	NT		

MPD 17 ft bgs				
Shut off	Shut off Blower 7/17/1997 9:33:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.06	17.7	2.2	380	
0.15	16.3	2.7	380	
0.30	14.7	3.1	410	
0.47	12.6	3.7	450	
0.93	7.6	5.4	485	
1.01	6.2	5.9	570	
1.11	5.5	6.1	670	
1.21	3.9	6.7	695	
1.28	3.4	6.9	770	
1.45	1.1	7.7	740	
1.52	1.4	7.8	780	
1.94	0.4	8.3	665	
2.03	0.1	8.9	770	
2.16	0.0	8.8	680	
2.26	0.0	9.0	720	
2.37	0.0	9.0	720	
2.45	0.0	9.1	770	
2.53	0.1	9.2	830	
2.94	0.0	10.1	890	
3.06	0.0	10.0	NT	
3.17	0.1	10.0	NT	
3.27	0.0	10.0	NT	
3.41	0.0	10.3	NT	
3.48	0.0	10.7	NT	
3.92	0.7	10.1	NT	
4.28	2.0	10.7	NT	

	MPD 7 ft bgs				
Shut off	Shut off Blower 7/17/1997 9:33:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.06	19.8	1.2	140		
0.15	19.8	1.3	125		
0.30	19.2	4.8	110		
0.47	19.3	1.5	60		
0.93	18.2	2.0	110		
1.01	18.1	2.1	160		
1.11	17.9	2.1	210		
1.21	17.2	2.2	200		
1.28	17.6	2.2	240		
1.44	16.8	2.5	230		
1.52	16.8	2.5	280		
1.94	15.8	2.8	150		
2.03	15.4	3.0	280		
2.16	14.9	3.0	170		
2.25	14.4	3.0	270		
2.37	14.1	3.1	230		
2.45	13.9	3.2	340		
2.52	13.7	3.3	310		
2.94	12.3	3.8	360		
3.06	11.9	3.8	NT		
3.17	11.4	4.0	NT		
3.27	11.1	4.1	NT		
3.40	10.2	4.4	NT		
3.48	10.1	4.7	NT		
3.92	9.0	4.9	NT		
4.28	8.0	5.5	NT		

	MPE 12 ft bgs				
Shut off		7/1997 9:3	33:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.07	15.0	10.9	255		
0.16	14.2	4.9	240		
0.31	13.0	5.2	270		
0.47	11.9	6.0	275		
0.94	9.0	7.7	280		
1.02	8.5	7.9	355		
1.12	8.0	8.0	420		
1.22	7.1	2.6	390		
1.29	6.9	8.9	490		
1.45	5.9	9.1	440		
1.53	5.9	9.2	495		
1.95	4.8	10.1	345		
2.04	4.9	10.0	525		
2.17	4.0	10.4	390		
2.26	4.6	10.8	420		
2.38	3.5	10.7	480		
2.45	3.0	11.0	590		
2.53	2.9	11.5	525		
2.94	2.6	12.8	605		
3.07	2.4	12.2	NT		
3.18	2.2	12.1	NT		
3.28	2.0	12.2	NT		
3.41	1.2	13.0	NT		
3.48	1.5	13.2	NT		
3.93	1.9	13.1	NT		
4.28	1.9	13.0	NT		

	MPE 17 ft bgs			
Shut off	Shut off Blower 7/17/1997 9:33:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.07	4.1	13.2	500	
0.16	3.6	13.9	460	
0.31	3.4	13.1	490	
0.47	2.9	13.8	460	
0.94	1.6	15.0	460	
1.02	0.9	15.5	530	
1.12	0.9	15.0	620	
1.22	0.2	15.8	580	
1.29	0.2	15.9	685	
1.45	0.0	16.0	645	
1.53	0.1	15.2	660	
1.95	0.2	15.1	540	
2.04	0.1	15.1	665	
2.17	0.1	15.0	510	
2.26	0.0	15.1	540	
2.38	0.1	14.9	620	
2.45	0.0	15.0	665	
2.53	0.0	15.1	660	
2.95	0.0	16.1	740	
3.07	0.0	15.9	NT	
3.18	0.1	15.1	NT	
3.28	0.0	15.1	NT	
3.41	0.0	15.9	NT	
3.49	0.0	15.9	NT	
3.93	0.5	15.2	NT	
4.29	0.0	15.9	NT	

	MPE 7	ft bgs	
Shut off		7/1997 9:3	33:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.07	14.6	6.2	315
0.15	13.9	6.5	300
0.31	14.0	6.2	320
0.47	13.5	6.5	300
0.94	11.9	7.3	300
1.02	11.1	7.7	370
1.12	10.9	7.7	440
1.22	10.1	7.9	400
1.29	10.0	8.1	495
1.45	9.4	8.1	440
1.53	9.5	8.0	495
1.94	8.9	8.4	360
2.03	8.2	8.8	505
2.17	8.0	8.8	390
2.26	7.8	8.9	405
2.38	7.2	9.0	425
2.45	7.3	9.0	520
2.53	7.0	9.3	500
2.94	6.1	10.2	560
3.07	6.0	10.1	NT
3.18	5.9	10.1	NT
3.28	5.6	10.1	NT
3.41	5.0	10.8	NT
3.48	5.0	10.9	NT
3.93	4.9	11.0	NT
4.28	6.4	9.2	NT

	MPF 12	2 ft bgs	
Shut off	Blower 7/1	7/1997 9:3	3:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.07	19.2	0.8	70
0.16	19.1	0.9	65
0.31	18.8	1.1	75
0.48	18.2	1.2	40
0.95	16.8	1.9	145
1.02	16.1	2.0	140
1.12	15.8	2.1	180
1.22	15.0	2.3	95
1.29	15.1	2.5	200
1.45	14.0	2.8	185
1.53	14.0	2.9	270
1.95	12.2	3.4	230
2.04	12.1	3.5	350
2.17	11.0	3.7	200
2.26	10.7	3.9	230
2.38	9.9	4.1	300
2.46	9.9	4.2	380
2.53	9.2	4.4	340
2.95	7.9	5.2	400
3.07	7.5	5.3	NT
3.18	7.0	5.5	NT
3.28	6.7	5.6	NT
3.41	5.8	6.2	NT
3.49	5.9	6.4	NT
3.93	5.1	6.9	NT
4.29	8.0	6.1	NT

	MPF 1	7 ft bgs	
	Blower 7/1	7/1997 9:	33:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.07	12.0	5.9	480
0.16	11.5	6.0	460
0.31	11.2	6.0	480
0.48	10.5	6.2	430
0.95	8.2	7.1	550
1.02	7.5	7.5	550
1.12	7.0	7.5	640
1.22	6.1	15.5	710
1.29	5.8	8.0	710
1.46	4.2	8.4	675
1.53	4.8	8.1	720
1.95	2.9	9.0	615
2.04	2.1	9.3	770
2.17	1.9	9.3	625
2.27	1.5	9.7	620
2.38	1.5	9.3	720
2.46	1.0	10.0	740
2.53	0.9	11.1	750
2.95	0.1	11.2	830
3.07	0.3	11.0	NT
3.18	0.2	10.8	NT
3.28	0.1	10.7	NT
3.42	0.1	10.9	NT
3.49	0.1	11.2	NT
3.93	0.6	11.1	NT
4.29	0.1	11.7	NT

	MPF 7	ft bgs	
Shut off		17/1997 9:3	3:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.07	18.8	2.0	200
0.16	18.6	3.0	190
0.31	18.4	8.0	195
0.47	18.5	3.0	155
0.94	17.8	3.2	140
1.02	17.4	3.3	220
1.12	17.1	3.3	265
1.22	16.8	3.4	180
1.29	17.1	3.4	285
1.45	16.5	3.6	250
1.53	16.4	3.4	320
1.95	15.9	3.7	245
2.04	15.4	3.7 .	265
2.17	14.9	3.7	205
2.26	15.0	3.7	235
2.38	14.6	3.7	290
2.46	14.1	3.9	360
2.53	13.9	4.0	320
2.95	12.7	4.3	370
3.07	12.2	4.3	NT
3.18	12.0	4.3	NT
3.28	11.8	4.4	NT
3.41	10.9	4.8	NT
3.49	10.9	4.8	NT
3.93	9.9	5.1	NT
4.29	8.9	5.3	NT

	MPG 1	2 ft bgs	
Shut off		7/1997 9:3	33:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.05	7.2	12.2	545
0.14	6.5	13.2	520
0.27	7.3	11.9	525
0.46	6.1	12.6	525
0.92	6.8	12.9	580
1.00	6.8	13.0	585
1.08	6.3	12.9	435
1.09	6.2	12.9	660
1.20	6.0	13.2	730
1.27	6.0	13.5	780
1.44	5.2	13.7	700
1.51	6.0	12.9	680
1.93	5.4	13.0	575
2.02	5.1	13.2	630
2.15	4.9	13.1	620
2.25	4.9	13.1	640
2.36	4.8	13.0	675
2.44	5.0	13.0	675
2.52	4.5	13.3	720
2.93	3.4	14.2	800
3.05	4.0	14.0	NT
3.17	4.0	14.1	NT
3.27	4.0	13.9	NT
3.40	3.7	14.1	NT
3.47	3.6	14.8	NT
3.92	3.9	14.9	NT
4.27	3.0	15.2	NT

	MPG 1	7 ft bgs	
Shut off		7/1997 9:3	3:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.05	0.1	19.0	700
0.14	0.4	19.0	655
0.27	1.0	17.0	670
0.46	1.3	17.5	650
0.93	1.3	17.9	705
1.00	0.6	19.0	740
1.08	0.8	18.1	560
1.09	0.8	18.0	820
1.21	0.1	19.0	925
1.27	0.2	18.9	945
1.44	0.0	19.0	910
1.51	0.4	17.9	870
1.93	0.5	17.8	730
2.02	0.1	18.1	800
2.15	0.2	17.5	750
2.25	0.1	17.8	800
2.37	0.3	17.1	830
2.44	0.1	17.1	800
2.52	0.0	17.9	905
2.93	0.0	19.1	995
3.06	0.2	18.1	NT
3.17	0.2	17.9	NT
3.27	0.2	17.9	NT
3.40	0.0	18.5	NT
3.47	0.0	18.9	NT
3.92	0.6	17.1	NT
4.28	0.0	19.0	NT

	MPG 7	ft bgs	
Shut off		7/1997 9:3	3:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.05	11.9	9.5	500
0.14	11.6	9.7	460
0.27	12.0	8.8	280
0.29	12.0	9.1	460
0.46	12.0	9.1	530
0.92	11.2	9.7	510
1.00	11.0	10.0	510
1.08	10.8	9.8	380
1.09	10.8	9.9	570
1.20	10.5	10.1	620
1.27	10.1	10.1	690
1.44	10.1	10.2	600
1.51	10.2	10.0	615
1.93	9.8	10.1	520
2.02	9.3	10.2	560
2.15	9.1	10.2	540
2.25	9.2	10.0	550
2.36	9.0	10.1	595
2.44	9.0	10.3	600
2.52	9.0	10.5	645
2.93	7.9	11.1	720
3.05	8.0	11.0	NT
3.17	8.0	11.0	NT
3.27	8.0	10.9	NT
3.40	7.5	11.1	NT
3.47	7.6	11.1	NT
3.92	7.5	11.0	NT
4.27	6.6	12.0	NT

	MPH 1:	2 ft bgs	
Shut off		7/1997 9:3	3:00 AM
Time		1	
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.05	19.5	0.8	120
0.15	18.9	0.8	115
0.30	18.9	0.9	90
0.46	18.8	1.0	45
0.93	16.8	1.4	110
1.00	16.8	1.5	160
1.11	16.1	1.7	770
1.21	15.4	1.8	190
1.28	15.9	1.9	200
1.44	14.5	2.1	195
1.52	14.1	2.2	260
1.93	12.3	2.9	180
2.03	12.1	3.1	290
2.16	11.2	3.2	210
2.25	10.9	3.3	280
2.37	10.4	3.5	265
2.44	10.0	3.6	340
2.52	9.8	3.8	350
2.93	8.1	4.6	405
3.06	8.0	4.7	NT
3.17	7.5	4.8	NT
3.27	7.0	4.9	NT
3.40	6.4	5.2	NT
3.48	6.3	5.4	NT
3.92	5.6	6.0	NT
4.28	5.0	7.4	NT

	MPH 1	7 ft bgs	
Shut off		7/1997 9:3	33:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.06	17.0	2.6	475
0.15	16.0	3.0	475
0.30	14.0	3.5	490
0.46	12.2	4.0	440
0.93	7.6	5.9	600
0.94	8.0	5.5	555
1.00	6.5	6.5	640
1.11	5.4	6.9	570
1.21	4.2	7.2	815
1.28	3.9	7.5	880
1.44	2.0	8.1	830
1.52	2.1	8.1	850
1.94	0.8	9.3	715
2.03	0.4	9.8	840
2.16	0.3	9.7	760
2.25	0.2	10.0	805
2.37	0.5	9.8	815
2.44	0.9	9.5	820
2.52	0.0	10.1	925
2.94	0.0	11.1	995
3.06	0.2	10.8	NT
3.17	0.1	10.8	NT
3.27	0.2	10.8	NT
3.40	0.0	11.0	NT
3.48	0.2	1.0	NT
3.92	0.3	11.0	NT
4.28	1.0	11.5	NT

	MPH 7	ft bgs	
Shut off		7/1997 9:3	33:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.05	19.8	0.8	95
0.14	19.2	8.0	95
0.30	19.8	0.9	25
0.46	19.3	0.9	70
0.93	18.8	1.2	100
1.00	18.6	1.4	160
1.11	18.8	1.4	110
1.21	17.9	1.5	190
1.27	18.4	1.5	190
1.44	17.5	1.6	160
1.52	17.4	1.6	220
1.93	16.4	2.1	140
2.03	16.3	2.1	220
2.16	15.7	2.1	160
2.25	15.1	2.1	240
2.37	15.3	2.1	185
2.44	15.0	2.2	270
2.52	14.8	2.4	260
2.93	14.3	2.9	220
3.06	13.0	3.0	NT
3.17	12.3	3.0	NT
3.27	12.1	3.1	NT
3.40	11.6	3.3	NT
3.48	11.4	3.5	NT
3.92	10.0	3.8	NT
4.28	10.1	4.3	NT

RESPIRATION TEST DATA

and

LINEAR REGRESSION RESULTS

October 1997

SUMMARY OUTPUT

MPA 7 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics					
Multiple R					
R Square	0.947				
Adjusted R Square	0.938				
Standard Error	0.719				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression	-	55.42	55.421	107.3	4.74E-05
Residual	9	3.10	0.516		
Total	7	58.52			

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
ntercept	15.31	0.48	31.68	31.68 6.58E-08	14.13	16.49	14.13	16.49
X Variable 1	-7.88	92.0	-10.36	10.36 4.74E-05	-9.74	-6.02	-9.74	-6.02

SUMMARY OUTPUT

MPA 12 ft bgs Regression of linear portion of oxygen versus time plot

ē	0.967							
	0.935							
	0.929							
	0.957							
	14							
ANOVA								
0	σŧ	SS	MS	F	Significance F	_		
Regression	_	157.46	157.458	171.8	1.80E-08			
Residual 1	2	11.00	0.917					
Total 1	13	168.46						
Coeffi	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept 15.	15.17	0.45	33.56	33,56 3,11E-13	14.19	16.15	14.19	16.15
X Variable 1 -5.	-5.28	0.40	-13.11	1.80E-08	-6.16	-4.40	-6.16	-4.40

sus time plot MDD 7 44 h

MPB 7 ft bgs Regression of linear portion of oxygen versus time p							
MPB 7 ft b							
		0.992	0.983	0.982	0.422	17	
SUMMARY OUTPUT	Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.16	0.18	110.86	110.86 2.83E-23	19.77	20.55	19.77	20.55
X Variable 1	-1.96	0.07	-29.87	-29.87 8.87E-15	-2.10	-1.82	-2.10	-1.82

Significance F 8.87E-15

F 892.1

MS 158.785 0.178

SS 158.79 2.67 161.46

15

Regression Residual Total

дĮ

ANOVA

SUMMARY OUTPUT

MPB 12 ft bgs Regression of linear portion of oxygen versus time plot

Street Statistics	
Multiple R	0.992
R Square	0.983
Adjusted R Square	0.983
Standard Error	0.678
Observations	24

	Significance F	4.89E-21			
	Ŧ	1292.6			
	SW	594.251	0.460		
	SS	594.25	10.11	604.37	
	df	1	22	23	
ANOVA		Regression	Residual	Total	

	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.43	0.21	94.61	94.61 3.24E-30	19.00	19.86	19.00	19.86
X Variable 1	-3.37	60:0	-35.95	4.89E-21	-3.56	-3.17	-3.56	-3.17

	Ī				1
	0.993	0.987	0.983	0.296	9
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	6.76E-05		
	F	294.6		
	SM	25.764	0.087	
	SS	25.76	0.35	26.11
	df	1	4	5
ANOVA		Regression	Residual	Total

	ı	Upper 95.0%	16.59	-23.88
	١	Upper 95% Lower 95.0% Upper 95.0%	15.21	-33.10
	•	Upper 95%	16.59	-23.88
		Lower 95%	15.21	-33.10
	,	P-value	63.92 3.59E-07	-17.16 6.76E-05
		t Stat	63.92	-17.16
26.11		Standard Error t Stat P-value	0.25	1.66
5		Coefficients	15.90	-28.49
Total			Intercept	X Variable 1

	0.986	0.972	0.970	0.492	17	
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	

	Significance F	4.52E-13		
	F	522.4		
	MS	126.662	0.242	
	SS	126.66	3.64	130.30
	ďf		15	16
VACAIV		Regression	Residual	Total

		1	<u>,</u> ,	l	
			Upper 95.0%	20.47	-1.64
			Upper 95% Lower 95.0% Upper 95.0%	19.60	-1.98
	ı		Upper 95%	20.47	-1.64
			Lower 95%	19.60	-1.98
			P-value	98.35 1.70E-22	-22.86 4.52E-13
0.242			t Stat	98.35	-22.86
3.64	130.30		Standard Error t Stat P-value Lower 95%	0.20	0.08
15	16		Coefficients	20.04	-1.81
Residual	Total			Intercept	X Variable 1

SUMMARY OUTPUT

MPC 12 ft bgs Regression of linear portion of oxygen versus time plot

0.989 0.977 0.976 0.545 14 df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% t 18.02 0.25 72.97 2.92E-17 17.48	Regression Statistics	,							
0.977 0.976 0.545 14 df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% t 18.02 0.25 72.97 2.92E-17 17.48	Multiple R	0.989							
0.976 0.545 14 df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% (18.02 0.25 72.97 2.92E-17 17.48	R Square	0.977							
0.545 14 df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48	Adjusted R Square	0.976							
df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48 18.02 0.40 22.87 2.92E-17 4.50	Standard Error	0.545							
df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% to 18.02 18.02 0.25 72.97 2.92E-17 17.48 4.38 0.10 22.82 2.92E-17 4.80	Observations	14							
df SS MS F Significance F 1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48 4.38 0.10 22.82 2.92E-17 4.80	ANOVA	ı							
1 154.68 154.683 520.6 2.98E-11 12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% (18.02 0.25 72.97 2.92E-17 17.48		β	SS	MS	щ	Significance F	1		
12 3.57 0.297 13 158.25 Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48	Regression	-	154.68	154.683		2.98E-11			
13 158.25 Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48	Residual	12	3.57	0.297					
Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48	Total	13	158.25						
Coefficients Standard Error t Stat P-value Lower 95% 18.02 0.25 72.97 2.92E-17 17.48									
18.02 0.25 72.97 2.92E-17 17.48		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0%	Upper 95.0%
1 38 0 10 0 10 0 10 0 10 0 10 0 10 0 10	Intercept	18.02	0.25	72.97	2.92E-17	17.48	18.56	17.48	18.56
14.50 0.19 -22.02 2.30E-11 -4.00	X Variable 1	-4.38	0.19	-22.82	-22.82 2.98E-11	-4.80	-3.96	-4.80	-3.96

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	0.939	0.881	0.873	0.815	17
Regression Statistics	Multiple R	R Square	are.	Standard Error	Observations

ANOVA

	at at	SS	MS	ı.	Significance F			
Regression	_	73.62	73.618	111.0	2.51E-08			
Residual	15	9.95	0.664					
Total	16	83.57				ı		
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.88	0.35	58.89	58.89 3.66E-19	20.12	21.63	20.12	21.63
X Variable 1	-1.40	0.13	-10.53	-10.53 2.51E-08	-1.68	-1.12	-1.68	-1.12

	ı				
	0.997	0.994	0.993	0.361	19
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	3.58E-20		
	F	2697.7		
	SIN	352.391	0.131	
	SS	352.39	2.22	354.61
	df	1	17	18
ANOVA		Regression	Residual	Total

	Upper 95.0%	21.92	-2.95
	Upper 95% Lower 95.0% Upper 95.0%	21.28	-3.21
	Upper 95%	21.92	-2.95
	Lower 95%	21.28	-3.21
	P-value	141.18 1.55E-27	-51.94 3.58E-20
	t Stat	141.18	-51.94
354.61	Standard Error t Stat P-value	0.15	90'0
18	Coefficients	21.60	-3.08
Total		Intercept	X Variable 1

SUMMARY OUTPUT

MPD 17 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics								
Multiple R	0.993	•						
R Square	0.985							
Adjusted R Square	0.984							
Standard Error	0.592							
Observations	14							
ANOVA								
	þ	SS	MS	u.	Significance F	•		
Regression	-	283.83	283.833	6.808	2.21E-12			
Residual	12	4.21	0.351					
Total	13	288.04						
						•		
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.41	0.26	77.49	77.49 1.42E-17	19.83	20.98	19.83	20.98
X Variable 1	-14.67	0.52	-28.44	-28.44 2.21E-12	-15.80	-13.55	-15.80	-13.55
							The second secon	

	0.989	0.979	0.977	0.554	17
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	6.34E-14		
	F	683.0		
	MS	209.617	0.307	
	SS	209.62	4.60	214.22
	df		15	16
ANOVA		Regression	Residual	Total

r 95.0%	19.01	-2.13
Uppe	-	ľ
Upper 95% Lower 95.0% Upper 95.0%	18.04	-2.51
Upper 95%	19.01	-2.13
Lower 95%	18.04	-2.51
P-value	81.15 3.03E-21	-26.14 6.34E-14
t Stat	81.15	-26.14
Standard Error t Stat	0.23	0.09
Coefficients	18.52	-2.32
	Intercept	X Variable 1

SUMMARY OUTPUT

MPE 12 ft bgs Regression of linear portion of oxygen versus time plot

0.993 0.986 0.985 0.511			
0.993 0.986 0.985 0.511			

	df	SS	MS	IL.	Significance F	ı		
Regression	1	238.42	238.420	911.7	2.00E-13			
Residual	13	3.40	0.262					
Total	14	241.82						
	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.27	0.22	88.05	1.96E-19	18.80	19.74	18.80	19.74
X Variable 1	-6.09	0.20	-30.19	-30.19 2.00E-13	-6.53	-5.65	-6.53	-5.65

ANOVA

SUMMARY OUTPUT

MPE 17 ft bgs Regression of linear portion of oxygen versus time plot

							1	1		ı		Upper 95% Lower 95.0% Upper 95.0%	Upper 95% Lower 95.0% Upper 95.09 19.20 8.81 19.20
							Significance F	1.67E-02				Lower 95%	Lower 95% 8.81
							T.	23.6				P-value	Stat P-value 8.58 3.33E-03
							MS	26.676	1.131			t Stat	t Stat 8.58
							SS	26.68	3.39	30.07		Standard Error t Stat P-value	Standard Error 1.63
	0.942	0.887	0.850	1.063	5		df	_	ო	4		Coefficients	
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total			Intercept

	Significance F	4.57E-09			
	F	160.9			
	MS	87.506	0.544		
	SS	87.51	7.61	95.12	
	df	1	14	15	
ANOVA		Regression	Residual	Total	

Upper 95.0%	21.47	-1.28
Upper 95% Lower 95.0% Upper 95.0%	20.10	-1.80
Upper 95%	21.47	-1.28
Lower 95%	20.10	-1.80
P-value	64.72 9.55E-19	-12.69 4.57E-09
t Stat	64.72	-12.69
Coefficients Standard Error t Stat P-value	0.32	0.12
Coefficients	20.79	-1.54
	Intercept	X Variable 1

	93	187	186	85	7
Regression Statistics	Multiple R 0.993	R Square 0.987	Adjusted R Square 0.986	Standard Error 0.585	Observations 22

	Significance F	2.41E-20		
	FS	1520.4		
	MS	520.784 1520.4	0.343	
	SS	520.78	6.85	527.63
	df	1	20	21
ANOVA		Regression	Residual	Total

	Jpper 95.0%	21.48	-2.95
	Upper 95% Lower 95.0% Upper 95.0%	20.70	-3.28
	Upper 95%	21.48	-2.95
	Lower 95%	20.70	-3.28
	P-value	111.59 1.98E-29	-38.99 2.41E-20
	t Stat	111.59	-38.99
527.03	Standard Error t Stat P-value	0.19	0.08
17	Coefficients	21.09	-3.12
lotal		Intercept	X Variable 1

SUMMARY OUTPUT

MPF 17 ft bgs Regression of linear portion of oxygen versus time plot

	0.983	0.966	0.962	0.531	10
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	3.69E-07		
	F	227.5		
	MS	64.126	0.282	
	SS	64.13	2.26	66.38
	df	1	80	6
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	18.34	0.38	48.81	48.81 3.44E-11	17.47	19.21	17.47	19.21
X Variable 1	-9.40	0.62	-15.08	-15.08 3.69E-07	-10.84	76.7-	-10.84	-7.97

SUMMARY OUTPUT

MPG 7 ft bgs Regression of linear portion of oxygen versus time plot

							Significance F	1.45E-08			
							F	134.4			
							SW	48.977	0.364		
							SS	48.98	5.10	54.08	
	0.952	906.0	0.899	0.604	16		df	1	4	15	
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total	

Intercept X Variable 1

Upper 95.0% 19.60 -0.94

Upper 95% Lower 95.0% 19.60 18.47 -0.94 -1.37

Lower 95% 18.47 -1.37

Coefficients Standard Error

t Stat P-value 72.38 2.00E-19 -11.59 1.45E-08

> 0.26 0.10

19.03 -1.15

SUMMARY OUTPUT

MPG 12 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics								
Multiple R	0.951							
R Square	0.905							
Adjusted R Square	0.900							
Standard Error	0.938							
Observations	23							
ANOVA								
	df	SS	MS	ı	Significance F			
Regression	-	175.49	175.486	199.4	3.42E-12			
Residual	21	18.48	0.880					
Total	22	193.96						
	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	14.87	0.30	49.43	3.22E-23	14.24	15.49	14.24	15.49
X Variable 1	-1.89	0.13	-14.12	-14.12 3.42E-12	-2.17	-1.61	-2.17	-1.61
X Variable 1	-1.89	0.13	-14.12	3.42E-12	-2.17	1	-1.0	

	0.933	0.870	0.861	0.832	16
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	1.37E-07		
	F	94.0		
	WS	65.044	0.692	
	SS	65.04	69.6	74.73
	df	-	14	15
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.91	0.36	57.68	57.68 4.76E-18	20.13	21.69	20.13	21.69
Variable 1	-1.33	0.14	-9.69	-9.69 1.37E-07	-1.62	-1.03	-1.62	-1.03

	0.991	0.982	0.980	0.417	2
	0.6	0.6	0.6	0.0	_
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	4.62E-10		
	F	547.0		
	NIS	95.216	0.174	
	SS	95.22	1.74	96.96
	df	_	10	11
ANONA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	21.59	0.21	101.37	101.37 2.14E-16	21.12	22.07	21.12	22.07
Variable 1	-3.16	0.13	-23.39	-23.39 4.62E-10	-3.46	-2.86	-3.46	-2.86

		SS MS		
	ı	Ą	F 2 525.7	1 1
		Significance F	Significance F 1.23E-10	Significance F 1.23E-10

X Variable 1 Intercept

 Upper 95%
 Lower 95.0%
 Upper 95.0%

 20.67
 19.36
 20.67

 -10.12
 -12.27
 -10.12

Lower 95% 19.36 -12.27

9.97E-16 1.23E-10 P-value

67.11 -22.93 t Stat

0.30

Coefficients 20.01 -11.19

Standard Error

MPA 12 ft bgs						
Shut off		21/1997 8:	03:00 AM			
Time	D. O. W. C. 10/	2.,,,,,,,,,,				
Elapsed,		·	TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	16.0	4.3	365			
0.09	15.1	4.2	380			
0.18	15.2	4.1	360			
0.29	14.0	4.9	380			
0.40	12.9	5.1	400			
0.46	12.0	5.0	400			
0.54	13.0	5.5	410			
0.77	12.0	6.1	440			
0.94	9.0	6.5	470			
1.05	7.5	7.0	440			
1.17	8.3	7.0	430			
1.34	8.0	7.0	480			
1.56	7.0	7.5	480			
1.93	6.0	8.2	440			
2.22	4.0	9.0	160			
2.53	4.5	9.0	190			
2.98	2.1	11.0	200			
2.99	2.1	10.5	430			
3.29	2.3	11.5	240			
3.58	2.0	12.5	240			
3.98	0.8	13.5	220			
4.31	1.1	13.0	210			
4.91	0.5	14.5	260			

MPA 7 ft bgs					
Shut off		21/1997 8:	03:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	16.0	5.0	460		
0.00	15.9	4.9	480		
0.19	14.0	5.2	500		
0.41	11.2	6.4	560		
0.45	11.0	6.5	580		
0.52	11.0	6.5	580		
0.78	10.3	7.3	620		
0.93	8.0	8.0	620		
1.03	7.0	8.5	160		
1.12	5.0	8.0	200		
1.18	7.7	8.4	180		
1.28	7.0	8.5	180		
1.35	7.5	8.5	240		
1.47	6.0	9.0	280		
1.58	6.0	9.0	240		
1.93	5.8	9.8	180		
2.22	5.1	9.9	150		
2.53	5.0	10.0	200		
2.98	3.0	11.7	210		
3.29	3.9	11.5	240		
3.57	3.1	12.5	240		
3.98	2.0	14.0	220		
4.31	2.1	12.5	210		
4.91	1.8	13.5	240		

	MPB 1	2 ft bgs	
Shut off		21/1997 8:	03:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	19.0	1.3	230
0.05	20.0	0.8	170
0.09	19.3	0.8	220
0.18	19.5	1.0	200
0.28	18.8	1.1	0
0.30	19.0	1.1	180
0.39	18.1	1.2	210
0.46	17.5	1.0	210
0.54	18.0	1.3	240
0.76	17.5	1.8	240
0.94	16.0	2.0	260
1.05	15.5	2.0	280
1.17	15.3	2.2	270
1.34	14.0	2.0	360
1.56	14.0	2.5	320
1.94	13.6	1.9	320
2.22	11.0	3.3	300
2.53	10.0	3.5	280
2.99	9.0	4.6	300
3.29	7.5	5.1	350
3.58	7.0	5.9	360
3.98	5.5	6.5	380
4.31	6.0	6.1	390
4.91	4.3	8.0	200

	MPB 1	7 ft bgs	
Shut off	Blower 10/	21/1997 8:	03:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	15.0	5.2	120
0.00	14.5	5.0	480
0.04	15.0	5.0	440
0.08	13.5	5.0	520
0.11	12.5	5.5	500
0.13	12.3	5.7	500
0.17	11.5	5.9	500
0.27	8.2	7.1	140
0.31	8.0	7.3	490
0.38	6.9	7.8	500
0.45	6.0	8.0	520
0.53	6.0	8.5	540
0.61	4.8	9.5	200
0.76	4.0	10.5	220
0.91	2.0	10.5	200
1.03	0.3	12.0	200
1.12	0.0	11.5	250

	MPB 7	ft bgs	
Shut off	Blower 10/	21/1997 8:	03:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.0	7.5	210
0.19	20.0	0.6	130
0.41	19.1	0.7	160
0.62	19.2	0.7	200
0.92	18.5	8.0	180
1.18	17.2	0.8	250
1.45	17.0	0.8	240
1.94	16.1	1.0	200
2.23	16.0	1.0	200
2.54	16.0	1.0	200
3.00	15.1	1.8	220
3.30	13.5	1.8	280
3.59	13.0	2.1	280
3.99	12.2	2.3	300
4.32	11.5	2.5	270
4.33	12.0	2.5	300
4.92	10.0	3.0	320

MPC 12 ft bgs						
Shut off		21/1997 8:	03:00 AM			
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	19.0	1.2	200			
0.09	18.2	1.2	240			
0.18	17.9	1.7	220			
0.30	16.9	2.4	240			
0.39	16.0	2.8	270			
0.46	15.0	3.0	280			
0.54	15.0	3.3	280			
0.77	15.0	3.8	300			
1.04	13.5	4.0	320			
1.17	13.2	4.2	320			
1.34	12.0	4.5	400			
1.56	11.0	5.0	400			
1.94	8.9	6.1	320			
2.22	9.0	5.3	300			
2.53	7.0	7.0	310			
2.98	6.0	8.0	140			
3.29	7.9	6.8	330			
3.58	6.8	7.9	340			
3.98	6.8	7.3	340			
4.31	7.2	6.5	320			
4.33	6.5	7.8	340			
4.91	5.8	8.9	200			

	MPC 7	ft bgs	****
Shut off	Blower 10/	21/1997 8:	03:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	19.5	0.7	190
0.20	19.8	0.7	170
0.41	19.0	0.8	170
0.52	19.5	8.0	160
0.78	19.2	0.9	180
1.06	18.1	1.0	190
1.18	17.0	1.0	250
1.45	18.0	1.0	280
1.95	16.0	1.7	220
2.23	16.0	1.5	210
2.54	16.0	1.8	220
3.00	15.0	2.3	220
3.31	14.5	2.5	280
3.59	13.0	3.0	280
3.99	12.8	3.0	280
4.32	12.5	3.0	300
4.92	10.6	3.5	300

	MPD 12 ft bgs			
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.2	180	
0.04	20.5	0.3	100	
0.08	20.5	0.1	175	
0.18	20.5	0.1	160	
0.28	20.5	0.0	0	
0.30	20.8	0.1	100	
0.39	20.1	0.2	120	
0.62	19.9	0.2	140	
0.92	19.0	0.3	160	
1.05	18.8	0.4	90	
1.17	18.1	0.3	150	
1.46	17.0	0.3	210	
1.94	15.7	0.5	210	
2.22	15.0	2.0	160	
2.27	15.0	0.5	50	
2.53	13.5	0.5	120	
2.98	12.0	5.0	150	
2.99	12.0	1.2	160	
3.29	11.0	1.6	200	
3.58	10.1	2.2	220	
3.98	9.1	2.6	260	
4.31	8.9	2.7	260	
4.91	7.0	3.8	320	

	MPD 17 ft bgs			
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	19.1	0.8	250	
0.03	20.0	0.8	160	
0.03	20.0	0.8	180	
0.07	19.0	0.9	260	
0.10	18.8	1.0	280	
0.13	18.3	1.1	220	
0.16	18.1	1.4	240	
0.26	16.3	1.7	28	
0.31	16.1	1.9	300	
0.38	15.0	2.2	340	
0.45	13.5	2.5	370	
0.53	13.0	3.0	400	
0.61	12.0	3.1	440	
0.75	10.8	3.8	500	
0.91	6.0	4.5	480	
1.02	5.0	5.0	120	
1.11	1.9	5.3	170	
1.19	4.0	5.8	170	
1.28	3.8	6.0	180	
1.35	3.0	6.5	220	
1.47	2.0	6.5	300	
1.57	1.5	7.0	240	
1.93	1.1	8.1	190	
2.21	0.0	8.5	180	
2.53	1.0	9.0	220	
2.97	0.5	9.5	230	
3.28	0.0	10.8	280	
3.57	0.0	11.0	280	

MPD 7 ft bgs				
Shut off Blower 10/21/1997 8:03:00 AM				
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	19.3	0.3	220	
0.20	20.8	0.1	110	
0.40	19.7	0.1	120	
0.62	20.2	0.2	140	
0.92	20.0	0.3	80	
1.18	18.9	0.2	180	
1.45	19.0	0.3	200	
1.95	18.1	0.4	120	
2.23	18.5	0.3	120	
2.54	18.5	0.0	200	
3.00	17.5	0.3	80	
3.01	17.5	0.3	70	
3.31	17.0	0.4	140	
3.59	15.2	0.5	140	
3.99	15.0	0.5	150	
4.32	14.5	0.9	160	
4.92	12.5	0.8	210	

01-4-66	MPE 12 ft bgs			
	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	18.0	0.7	200	
0.05	19.5	8.0	160	
0.09	19.0	8.0	210	
0.18	18.5	1.0	220	
0.29	17.5	1.5	195	
0.39	17.0	1.8	220	
0.45	16.0	2.0	240	
0.54	16.0	2.3	240	
0.77	15.0	3.1	280	
0.93	13.0	3.8	300	
1.05	12.0	3.8	330	
1.17	12.1	4.0	310	
1.34	11.0	4.5	400	
1.57	9.0	5.0	360	
1.94	7.9	6.1	320	
2.22	6.5	6.5	300	
2.53	6.0	7.0	320	
2.98	4.5	7.9	320	
3.29	4.5	7.4	350	
3.58	4.0	9.0	370	
3.98	3.5	9.2	360	
4.31	3.6	9.1	380	
4.33	3.5	9.3	370	
4.91	2.6	10.9	220	

	MPE 17 ft bgs			
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	7.2	11.0	200	
0.04	9.0	9.5	600	
0.08	9.5	8.8	620	
0.11	9.0	9.0	600	
0.11	9.0	9.0	170	
0.13	10.0	8.5	170	
0.17	11.0	8.0	160	
0.27	6.7	9.9	165	
0.32	5.5	10.5	545	
0.38	4.9	11.0	570	
0.45	4.0	11.0	580	
0.53	4.0	11.5	600	
0.61	4.0	12.2	215	
0.76	3.1	13.0	240	
0.91	0.3	14.0	240	
1.03	0.5	12.0	200	
1.12	0.0	13.5	260	

MPE 7 ft bgs				
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	18.8	1.1	230	
0.20	18.5	1.4	180	
0.40	17.5	1.5	210	
0.52	18.0	1.8	210	
0.78	17.3	2.0	230	
0.93	16.0	2.3	240	
1.18	14.7	2.2	300	
1.46	15.0	2.5	360	
1.95	13.0	3.3	280	
2.23	13.0	3.5	240	
2.54	13.0	3.5	280	
3.00	11.5	4.2	280	
3.31	11.5	4.5	320	
3.59	10.0	4.9	330	
3.99	8.8	5.0	310	
4.32	8.8	5.0	310	
4.92	7.5	5.8	340	

MPF 12 ft bgs				
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	19.9	0.3	160	
0.05	20.5	0.1	50	
0.05	20.5	0.1	120	
0.09	20.5	0.3	175	
0.18	20.4	0.4	160	
0.28	20.3	0.3	0	
0.39	20.0	0.5	130	
0.54	19.5	0.3	150	
0.77	19.8	0.6	110	
1.04	19.0	0.5	140	
1.16	18.3	0.7	140	
1.46	17.0	0.5	260	
1.94	15.2	1.1	190	
2.23	14.0	1.0	200	
2.53	13.0	1.5	220	
2.99	11.6	2.3	190	
3.30	9.9	2.8	250	
3.30	10.6	2.7	290	
3.58	10.0	3.2	300	
3.98	8.2	3.5	280	
4.32	8.0	4.7	280	
4.91	6.0	4.8	340	

	MPF 17 ft bgs			
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	16.9	3.1	420	
0.03	18.0	2.8	340	
0.08	17.1	3.0	430	
0.11	17.0	3.0	380	
0.13	17.0	3.1	380	
0.16	17.2	2.8	360	
0.26	15.2	3.5	70	
0.31	15.5	3.8	440	
0.38	14.6	3.9	450	
0.45	14.0	4.0	460	
0.53	13.0	4.0	480	
0.61	13.1	4.5	490	
0.75	12.1	5.0	540	
0.91	10.0	5.5	560	
1.03	8.0	6.0	120	
1.11	5.7	6.1	180	
1.19	7.5	6.3	160	
1.28	7.0	6.5	180	
1.35	7.0	6.5	220	
1.47	5.0	7.0	280	
1.57	5.0	7.5	220	
1.93	4.1	8.2	180	
2.22	3.0	8.5	160	
2.22	3.0	8.5	160	
2.52	3.0	9.0	200	
2.98	1.1	10.2	200	
3.28	1.9	10.5	240	
3.57	1.3	11.0	240	
3.97	0.4	11.5	220	
4.31	0.9	11.0	210	
4.90	0.2	12.0	240	

	MPF 7 ft bgs				
Shut off	Shut off Blower 10/21/1997 8:03:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	19.7	0.2	180		
0.20	20.1	0.4	110		
0.40	19.9	0.4	120		
0.62	20.0	0.5	150		
0.92	20.0	0.5	120		
1.18	18.2	0.5	200		
1.46	19.0	0.3	240		
1.95	17.9	0.5	140		
2.24	18.0	0.3	140		
2.54	18.0	0.3	120		
3.00	17.0	0.6	110		
3.31	16.5	0.7	150		
3.59	14.5	8.0	160		
3.99	14.3	8.0	180		
4.33	14.0	0.8	180		
4.92	12.1	1.0	240		

	MPG 12 ft bgs			
	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	15.5	4.0	350	
0.10	15.8	3.5	340	
0.19	16.0	3.6	320	
0.29	15.0	4.1	220	
0.39	14.4	4.3	350	
0.46	14.0	4.5	360	
0.54	11.0	7.0	360	
0.63	14.0	4.5	360	
0.77	14.1	4.8	370	
0.93	13.0	5.0	400	
1.05	12.0	5.0	400	
1.17	12.9	5.0	380	
1.34	12.0	5.0	480	
1.57	11.0	5.5	400	
1.94	10.7	5.9	340	
2.23	10.0	4.0	340	
2.53	9.8	6.0	340	
2.99	9.0	6.8	350	
3.30	8.1	7.0	380	
3.58	8.0	7.5	390	
3.98	7.2	7.5	400	
4.32	8.2	6.5	370	
4.91	6.1	8.1	440	

	MPG 7 ft bgs				
Shut off	Blower 10/	21/1997 8:	03:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	18.0	0.8	220		
0.20	19.1	0.7	160		
0.40	18.9	0.8	180		
0.62	18.9	0.9	200		
0.92	18.0	1.3	200		
1.18	16.8	1.2	260		
1.46	17.5	1.3	310		
1.95	16.4	1.8	230		
2.24	16.5	1.8	210		
2.54	17.0	1.8	220		
3.00	16.1	2.2	220		
3.31	16.0	2.3	260		
3.60	14.2	2.6	270		
3.99	14.2	2.7	280		
4.33	14.2	2.5	290		
4.92	12.8	3.1	340		

MPH 12 ft bgs				
Shut off	Shut off Blower 10/21/1997 8:03:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	19.5	0.4	200	
0.04	20.5	0.8	180	
0.08	20.5	0.4	190	
0.17	20.5	0.4	160	
0.27	20.5	0.3	0	
0.30	20.5	0.4	100	
0.38	20.0	0.5	160	
0.53	19.5	0.3	160	
0.76	19.6	0.6	140	
1.04	19.0	0.5	140	
1.16	18.3	0.6	120	
1.47	17.0	0.5	260	
1.94	15.4	0.8	190	
2.23	15.0	0.8	190	
2.53	13.0	1.0	220	
2.99	12.0	1.8	220	
3.30	12.5	2.0	280	
3.59	11.0	2.5	300	
3.99	9.0	3.0	280	
4.32	8.2	3.1	300	
4.91	6.8	4.0	340	

MPH 17 ft bgs						
Shut off	Shut off Blower 10/21/1997 8:03:00 AM					
Time	me					
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	19.0	0.8	310			
0.03	19.5	1.0	240			
0.07	19.1	0.9	280			
0.10	18.2	1.1	340			
0.13	18.6	1.3	270			
0.16	18.5	1.3	260			
0.26	16.9	1.9	24			
0.31	16.5	2.1	330			
0.38	15.9	2.4	330			
0.45	15.0	2.8	360			
0.53	14.0	3.0	380			
0.61	13.9	3.3	400			
0.75	12.5	3.8	440			
0.90	10.0	4.5	460			
1.02	9.0	5.0	480			
1.11	6.3	4.7	140			
1.19	6.7	5.5	150			
1.28	6.0	6.0	140			
1.35	5.8	6.0	200			
1.47	5.0	6.0	660			
1.57	3.0	7.0	220			
1.93	2.8	7.9	150			
2.21	3.0	8.0	580			
2.21	1.0	8.0	140			
2.22	2.0	8.0	140			
2.22	2.0	8.0	140			
2.52	1.5	8.5	200			
2.97	0.0	10.0	210			
3.28	1.0	10.0	220			
3.57	0.9	10.8	230			
4.33	0.4	10.9	240			

MPH 7 ft bgs							
Shut off	Shut off Blower 10/21/1997 8:03:00 AM						
Time							
Elapsed,			TPH,				
day	O ₂ , %	CO ₂ , %	ppmv				
0.00	19.8	0.2	180				
0.20	20.0	0.1	100				
0.40	20.0	0.2	120				
0.63	20.5	0.1	120				
0.93	20.0	0.3	74				
1.19	18.5	0.0	170				
1.47	20.0	0.3	210				
1.95	18.4	0.3	86				
2.24	19.0	0.0	100				
2.54	18.0	0.0	76				
3.01	18.0	0.0	70				
3.31	17.5	0.0	190				
3.60	15.6	0.3	110				
3.99	15.2	0.0	120				
4.33	15.0	0.0	140				
4.92	13.0	0.6	180				

RESPIRATION TEST DATA

and

LINEAR REGRESSION RESULTS

January 1998

SUMMARY OUTPUT

MPA 7 ft bgs Regression of linear portion of oxygen versus time plot

	0.989	0.978	0.976	0.356	13
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	1.66E-10		
	F	497.2		!
	MS	63.008	0.127	
	SS	63.01	1.39	64.40
	đ	-	1	12
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	18.22	0.17	108.64	108.64 5.03E-18	17.85	18.59	17.85	18.59
X Variable 1	-1.43	90.0	-22.30	-22.30 1.66E-10	-1.57	-1.29	-1.57	-1.29

	0.993	0.986	0.985	0.411	4
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

-				
	Significance F	1.76E-12		
	F	841.3		
	MS	142.056	0.169	
	SS	142.06	2.03	144.08
	df	-	12	13
ANOVA		Regression	Residual	Total

	O o de cionado	The state of	1070	order. C	1 01105 050/	1 Innor 050/	1 0110r 0E 00/	1000 JO JOSE 00/
	Coefficients	Statitual a Ellor I Stat	र अखर	L-value	LOWER 9370	Opper 3070	Upper 90% Lower 90.0% Upper 90.0%	Opper 30.0%
Intercept	16.61	0.18	94.10	1.39E-18	16.23	17.00	16.23	17.00
X Variable 1	-2.03	0.07	-29.00	-29.00 1.76E-12	-2.18	-1.87	-2.18	-1.87

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	0.959	0.920	0.912	0.428	13
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

ANOVA

L I]		
Significance F	2.33E-07		
F	125.7		
SM	23.055	0.183	
SS	23.05	2.02	25.07
df	1	7	12
	Regression	Residual	Total

Upper 95.0% 21.08 -0.70 Upper 95% Lower 95.0% 21.08 20.19 -0.70 -1.03 Lower 95% 20.19 -1.03 t Stat P-value 102.24 9.80E-18 -11.21 2.33E-07 Coefficients Standard Error t Stat 20.63 0.20 102.24 -0.86 0.08 -11.21 Intercept X Variable 1

1	I				1
	0.993	0.987	0.986	0.365	14
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	1.24E-12			
	F	891.8			
	MS	118.852	0.133		
	SS	118.85	1.60	120.45	
	df	1	12	13	
ANOVA		Regression	Residual	Total	

		Upper 95.0%	20.37	-1.72
		Upper 95% Lower 95.0% Upper 95.0%	19.68	-2.00
		Upper 95%	20.37	-1.72
		Lower 95%	19.68	-2.00
		P-value	127.25 3.72E-20	-29.86 1.24E-12
5		t Stat	127.25	-29.86
2	120.45	Standard Error t Stat P-value	0.16	90.0
1	13	 Coefficients	20.03	-1.86
	Total		Intercept	X Variable 1

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	0.997	0.994	0.993	0.345	8
ממומווים אומומורים ואבעו	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

ANOVA

٠			
Significance F	6.42E-08		
F	1011.5		
MS	120.525	0.119	
SS	120.53	0.71	121.24
đf	_	9	7
	Regression	Residual	Total
	MS F	df SS MS F 1 120.53 120.525 1011.5	df SS MS F 1 120.53 120.525 1011.5 6 0.71 0.119

Upper 95.0%	17.90	-6.78
Upper 95% Lower 95.0% Upper 95.0%	16.90	-7.91
Upper 95%	17.90	-6.78
Lower 95%	16.90	-7.91
P-value	85.28 1.75E-10	-31.80 6.42E-08
t Stat	85.28	-31.80
Standard Error t Stat P-value	0.20	0.23
Coefficients	17.40	-7.34
	Intercept	X Variable 1

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MPC 7 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics								
Multiple R	0.983							
R Square	0.966							
Adjusted R Square	0.963							
Standard Error	0.424							
Observations	13							
ANOVA								
	df	SS	MS	Ŧ	Significance F			
Regression	_	56.88	56.881	315.9	1.89E-09			
Residual	7	1.98	0.180					
Total	12	58.86				_		
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	<i>Upper 95.0%</i>
Intercept	20.14	0.20	100.69	100.69 1.16E-17	19.70	20.58	19.70	20.58
X Variable 1	-1.36	0.08	-17.77	-17.77 1.89E-09	-1.53	-1.19	-1.53	-1.19

Regression Statistics Multiple R R Square Adjusted R Square	1.000 0.999 0.999
Standard Error	0.088
Observations	4

	Significance F	3.44E-04		
	F	2901.3		
	SW	22.485	0.008	
	SS	22.48	0.02	22.50
	df	-	2	3
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0%	Upper 95.0%
ntercept	20.02	0.07	280.72	280.72 1.27E-05	19.72	20.33	19.72	20.33
/ariable 1	-14.32	0.27	-53.86	-53.86 3.44E-04	-15.46	-13.18	-15.46	-13.18

MPD 7 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics								
Multiple R	0.938							
R Square	0.880							
Adjusted R Square	0.869							
Standard Error	0.469							
Observations	13							
ANOVA								
	df	SS	MS	F	Significance F			
Regression		17.74	17.745	80.7	2.13E-06			
Residual	1	2.42	0.220					
Total	12	20.16						
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.88	0.22	94.45	94.45 2.34E-17	20.39	21.37	20.39	21.37
X Variable 1	-0.76	0.08	-8.98	-8.98 2.13E-06	-0.94	-0.57	-0.94	-0.57

Regression Statistics Multiple R	0.983
R Square	996.0
Adjusted R Square	0.963
Standard Error	0.626
Observations	14

	Significance F	3.58E-10		
	F	340.3		
	MS	133.345	0.392	
	SS	133.34	4.70	138.05
	φ	1	12	13
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.98	0.27	77.66	77.66 1.38E-17	20.39	21.56	20.39	21.56
X Variable 1	-1.97	0.11	-18.45	-18.45 3.58E-10	-2.20	-1.74	-2.20	-1.74

MPD 17 ft bgs Regression of linear portion of oxygen versus timeplot

							Significance F	.84E-07		
							Signific	1.84		
							F	711.0		
							MS	157.174	0.221	
							SS	157.17	1.33	158.50
	966.0	0.992	0.990	0.470	80		df	-	ၑ	7
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	% Lower 95.0% Upper 95.0%
Intercept	19.45	0.28	69.90	69.90 5.77E-10	18.77	20.13	18.77	20.13
X Variable 1	-8.39	0.31	-26.67	-26.67 1.84E-07	-9.16	-7.62	-9.16	-7.62

	82	7	5	0	•
Regression Statistics	Multiple R 0.988	R Square 0.977	Adjusted R Square 0.975	Standard Error 0.490	Observations 13
Regressio	Mult	R R	Adjusted	Standa	Obser

	Significance F	2.27E-10		
	F	469.2		
	MS	112.854	0.241	
	SS	112.85	2.65	115.50
	df.	1	1	12
ANOVA		Regression	Residual	Total

Regression	1	112.85	112.854	112.854 469.2	2.27E-10			
Residual	1	2.65	0.241				÷	
Total	12	115.50				ı		
							:	
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Jpper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.05	0.23	82.37	82.37 1.05E-16	18.54	19.56	18.54	19.56
X Variable 1	-1.91	0.09	-21.66	-21.66 2.27E-10	-2.11	-1.72	-2.11	-1.72

MPE 12 ft bgs Regression of linear portion of oxygen versus timeplot

	0.988			
	0.976			
	0.974			
	0.727			
	=			
ı	df SS	MS	Ŧ	Significance F
	1 194.79	194.791	368.7	1.30E-08
	9 4.75	0.528		
	10 199.55			

	Charle Carlo	Stondord Corner		order a	1 Outor 050/	1 Inner 05%	10Mer 05 0%	1 01/10r 05 0% 1 Inner 05 0%
	Coefficients	Standard Ellor		i Sidi r-value	LUWEI 33/0	and sayo	LOWC! 30.078	Oppol 00:0%
Intercept	18.65	0.39	47.35	4.19E-12	17.75	19.54	17.75	19.54
X Variable 1	-3.90	0.20	-19.20	-19.20 1.30E-08	-4.35	-3.44	-4.35	-3.44

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	0.998	0.997	0.995	0.124	5
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	8.40E-05		
	F	881.2		
	MS	13.654	0.015	
	SS	13.65	0.05	13.70
	df	τ-	က	7
ANOVA		Regression	Residual	Total

Upper 95% Lower 95.0% Upper 95.0%	11.81	-9.38
Lower 95.0%	11.23	-11.63
Upper 95%	11.81	-9.38
 Lower 95%	11.23	-11.63
P-value	127.29 1.07E-06	-29.68 8.40E-05
t Stat	127.29	-29.68
Standard Error t Stat P-value	60.0	0.35
Coefficients	11.52	-10.51
	Intercept	X Variable 1

	0.953	606.0	0.900	0.529	13
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	4.68E-07			
	F	109.5			
	MS	30.591	0.279		
	SS	30.59	3.07	33.66	
	df	1	7	12	
ANOVA		Regression	Residual	Total	

	Upper 95.0%	21.54	-0.79
	Upper 95% Lower 95.0% Upper 95.0%	20.44	-1.21
	Upper 95%	21.54	-0.79
	Lower 95%	20.44	-1.21
	P-value	84.17 8.29E-17	-10.47 4.68E-07
	t Stat	84.17	-10.47
	Standard Error t Stat P-value	0.25	0.10
! !	Coefficients	20.99	-1.00
		Intercept	X Variable 1

	Significance F	2.05E-11		
	F	554.7		
	MS	153.365	0.276	
	SS	153.36	3.32	156.68
	df	1	12	13
ANOVA		Regression	Residual	Total

				Upper 95.0%	21.45	-1.92
			:	Upper 95% Lower 95.0% Upper 95.0%	20.46	-2.31
			•	Upper 95%	21.45	-1.92
- 1				Lower 95%	20.46	-2.31
:				P-value	92.29 1.75E-18	-23.55 2.05E-11
))))	0.276			t Stat	92.29	-23.55
,,,,,,	3.32	156.68		Standard Error t Stat P-value	0.23	0.09
	12	13		Coefficients	20.95	-2.11
	Residual	Total			Intercept	X Variable 1

MPF 17 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics					
Multiple R	0.993				
R Square					
Adjusted R Square					
Standard Error	٠				
Observations					
ANOVA					
	df	SS	MS	F	Significance F
Regression	_	129.61	129.608	509.5	8.48E-08
Residual	7	1.78	0.254		
Total	ထ	131.39			

Upper 95.0% 18.51 -3.81 Upper 95% Lower 95.0% 18.51 17.11 -3.81 -4.70 Lower 95% 17.11 -4.70 8.81E-11 8.48E-08 P-value 60.54 -22.57 t Stat Standard Error 0.29 Coefficients 17.81 X Variable 1 Intercept

Regression Statistics	
Multiple R	0.984
R Square	0.968
Adjusted R Square	0.965
Standard Error	0.266
Observations	13

	Significance F	1.43E-09			
	F	332.9			
	MS	23.519	0.071		
	SS	23.52	0.78	24.30	
	df	-	7	12	
ANOVA		Regression	Residual	Total	

	Upper 95% Lower 95.0% Upper 95.0%	20.22	-0.77
	Lower 95.0%	19.66	-0.98
	Upper 95%	20.22	-0.77
	Lower 95%	19.66	-0.98
	P-value	158.99 7.64E-20	-18.25 1.43E-09
	t Stat	158.99	-18.25
24.30	Standard Error t Stat P-value	0.13	0.05
12	Coefficients	19.94	-0.87
Total		Intercept	X Variable 1

	0.998	966.0	0.995	0.155	14
Regression Statistics	Multiple R 0	R Square 0	Adjusted R Square 0	Standard Error 0	Observations

	Significance F	1.55E-15			
	Ŧ	65.823 2742.1			
	MS	65.823	0.024		
	SS	65.82	0.29	66.11	
	df	-	12	13	
ANOVA		Regression	Residual	Total	

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
	16.74	0.07	250.20	250.20 1.12E-23	16.60	16.89	16.60	16.89
Variable 1	-1.39	0.03	-52.37	-52.37 1.55E-15	-1.44	-1.33	-1.44	-1.33

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MPH 7 ft bgs Regression of linear portion of oxygen versus timeplot

							Significance F	9.65E-06		
							F	58.9		
							WS	11.578	0.197	
							SS	11.58	2.16	13.74
	0.918	0.843	0.828	0.443	13		df	-	7	12
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

Respiration Test January 1998

Intercept X Variable 1

Upper 95.0% 21.31 -0.44

Upper 95% Lower 95.0%

Lower 95% 20.39 -0.79

P-value

t Stat

Standard Error 0.21 0.08

Coefficients 20.85 -0.61

20.39 -0.79

21.31 -0.44

99.66 1.30E-17 -7.68 9.65E-06

	0.981	0.963	0.959	0.528	14
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	6.26E-10			
	F	309.0			
	SW	86.107	0.279		
	SS	86.11	3.34	89.45	
	Jp	-	12	13	
ANOVA		Regression	Residual	Total	

			Upper 95.0%	21.31	-1.39
			Upper 95% Lower 95.0% Upper 95.0%	20.31	-1.78
		1	Upper 95%	21.31	-1.39
6.26E-10			Lower 95%	20.31	-1.78
309.0			P-value	91.25 2.01E-18	-17.58 6.26E-10
86.107	0.279		t Stat	91.25	-17.58
86.11	3.34	89.45	Standard Error t Stat P-value	0.23	60 0
,	12	13	Coefficients	20.81	-1.58
Regression	Residual	Total		Intercept	X Variable 1

MPH 17 ft bgs Regression of linear portion of oxygen versus timeplot

		000		
	0.219	1.53 0	7	Residual
770.7 2.02E-08	168.470 770	168.47 16	1	Regression
F Significance F	MS F	SS	df	
				ANOVA
			6	Observations
			0.468	Standard Error
			0.990	Adjusted R Square
			0.991	R Square
			0.995	Multiple R
				Regression Statistics

Upper 95% Lower 95.0% Upper 95.0% 19.67 -5.26 18.48 -6.24 19.67 -5.26 Lower 95% 18.48 -6.24 1.84E-11 2.02E-08 P-value 75.77 -27.76 t Stat Standard Error 0.25 Coefficients 19.07 Intercept X Variable 1

MPA 12 ft bgs			
Shut off Blower 1/26/1998 9:45:00 AM			
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	17.0	3.0	120
0.14	16.5	3.0	100
0.21	16.0	3.0	98
0.44	16.0	3.3	98
0.94	15.0	3.5	NR
1.18	14.0	4.0	320
1.46	13.0	4.0	280
1.92	12.0	4.5	290
2.16	12.0	4.5	290
2.92	11.0	5.8	310
3.33	10.3	5.6	310
3.95	9.1	5.5	650
4.26	8.1	6.2	780
4.82	6.5	6.9	920
0.00	20.5	0.5	400
0.13	1.0	14.5	300
0.16	1.0	13.5	920
0.24	1.0	14.0	820
0.48	1.0	14.0	720
0.96	0.5	14.5	1700
2.17	0.2	14.0	1200

MPA 7 ft bgs					
Shut off	Shut off Blower 1/26/1998 9:45:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	19.0	2.0	190		
0.14	18.0	2.0	160		
0.46	17.0	2.0	160		
0.97	17.0	2.5	420		
1.20	16.5	2.5	380		
1.45	16.0	4.0	340		
1.91	15.0	3.0	360		
2.15	15.0	3.0	360		
2.91	14.0	3.5	360		
3.32	13.8	3.3	360		
3.93	12.8	3.4	370		
4.24	12.0	3.9	360		
4.80	11.5	4.0	380		

	MPB 12 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	15:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	0.5	70		
0.14	19.0	0.5	60		
0.25	19.5	0.5	40		
0.45	19.0	0.5	54		
0.94	19.0	0.5	NR		
1.19	18.0	8.0	200		
1.46	17.5	8.0	160		
1.92	16.5	1.0	170		
2.17	16.0	1.0	190		
2.92	15.0	1.8	180		
3.33	14.0	1.5	200		
3.94	12.5	2.2	210		
4.25	11.8	2.8	220		
4.81	11.0	4.1	220		

	MPB 17 ft bgs			
Shut off	Blower 1/2	26/1998 9:4	5:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	17.5	2.5	140	
0.13	16.5	2.8	120	
0.25	16.0	3.0	110	
0.47	13.5	3.5	120	
0.97	10.0	4.8	400	
1.18	8.5	5.5	380	
1.20	8.6	5.5	1000	
1.47	7.0	6.5	1000	
1.93	5.0	7.5	950	
2.17	4.3	7.8	990	
2.93	3.0	9.0	1500	
3.34	2.5	9.0	880	

	MPB 7 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	5:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.2	46		
0.15	20.0	0.0	48		
0.46	20.0	0.0	44		
0.97	19.0	0.3	170		
1.20	20.0	0.3	180		
1.45	20.0	0.5	120		
1.91	19.0	0.5	120		
2.16	19.0	0.3	120		
2.91	18.5	0.6	100		
3.32	18.0	0.5	110		
3.93	17.2	0.5	105		
4.24	16.8	0.6	100		
4.80	16.1	0.6	110		

MPC 12 ft bgs				
Shut off	Shut off Blower 1/26/1998 9:45:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.5	70	
0.14	18.0	1.0	72	
0.25	16.5	1.5	72	
0.45	13.5	3.0	88	
0.94	13.0	3.5	NR	
1.19	12.0	4.0	300	
1.46	12.5	4.0	260	
1.92	12.0	4.0	260	
2.17	11.8	4.0	270	
2.92	5.0	8.0	300	
2.93	4.5	8.5	1400	
3.34	4.0	9.0	900	
3.94	8.5	5.6	620	
3.96	8.8	5.6	680	
4.26	8.0	6.0	720	
4.81	6.0	6.8	880	

	MPC 17 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	15:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.3	400		
0.13	2.0	14.0	320		
0.16	20.0	0.5	0		
0.17	3.0	13.0	820		
0.24	2.5	13.5	840		
0.48	2.0	12.5	660		
0.96	1.0	13.0	1600		
2.18	0.5	13.5	1100		

MPC 7 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	5:00 AM	
Time				
Elapsed,	•		TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.5	0.3	56	
0.15	19.5	0.5	50	
0.46	19.5	0.5	52	
0.97	19.0	0.5	180	
1.20	18.5	0.5	180	
1.46	18.0	0.8	140	
1.91	17.5	8.0	140	
2.16	17.3	0.8	160	
2.92	17.0	1.0	130	
3.32	15.0	1.1	180	
3.93	14.2	1.3	160	
4.24	14.8	1.8	160	
4.80	13.8	2.0	170	

MPD 12 ft bgs				
Shut off		26/1998 9:4	15:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.9	0.0	42	
0.14	20.0	0.0	48	
0.25	20.0	0.0	30	
0.45	20.0	0.0	40	
0.94	19.0	0.0	NR	
1.19	19.0	0.0	160	
1.46	18.8	0.3	100	
1.92	18.0	0.1	95	
2.17	17.8	0.1	100	
2.92	15.0	0.6	70	
3.33	14.0	0.5	110	
3.94	12.1	0.5	110	
4.25	12.5	0.8	100	
4.81	11.9	0.9	120	

	MPD 17 ft bgs			
Shut off	Shut off Blower 1/26/1998 9:45:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.5	100	
0.13	18.5	0.5	84	
0.25	17.0	0.8	72	
0.47	15.0	1.0	98	
0.97	11.0	2.0	300	
1.18	9.5	2.5	300	
1.21	10.0	2.5	630	
1.47	7.0	3.3	620	
1.93	4.3	4.0	620	
2.18	3.5	4.3	700	
2.93	1.0	6.0	1000	
3.34	0.8	6.8	780	

Shut off	Shut off Blower 1/26/1998 9:45:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.0	34		
0.15	20.0	0.0	40		
0.46	20.0	0.0	46		
0.98	20.5	0.0	140		
1.20	20.0	0.0	140		
1.46	20.0	0.0	98		
1.92	20.0	0.1	96		
2.16	20.0	0.0	100		
2.92	19.0	0.5	50		
3.32	18.0	0.0	68		
3.93	17.9	0.0	16		
4.25	17.3	0.0	18		
4.80	17.0	0.1	14		

MPE 12 ft bgs				
Shut off	Shut off Blower 1/26/1998 9:45:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.3	58	
0.14	19.0	0.5	58	
0.26	18.5	0.5	52	
0.45	17.0	1.0	62	
0.95	14.0	2.0	NR	
1.19	13.0	2.5	280	
1.46	12.0	3.5	220	
1.92	11.0	4.0	260	
2.17	10.5	4.0	260	
2.92	7.5	6.0	280	
2.93	7.5	6.0	1000	
3.34	6.0	6.5	760	
3.95	6.1	6.1	660	
4.26	6.0	6.8	780	
4.82	5.0	7.0	880	

MPE 17 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	15:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	11.5	7.0	180	
0.13	0.13 10.0		140	
0.16	10.0	7.0	480	
0.24	9.0	17.0	540	
0.47	6.5	8.0	500	
0.96	5.0	14.5	1300	
1.48	3.3	10.5	1400	
1.93	1.93 2.5		1100	
2.18	2.0	11.0	1000	
2.94	1.0	12.0	1600	

MPE 7 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	15:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.5	64	
0.15	19.0	8.0	62	
0.46	18.0	0.5	62	
0.98	17.0	1.0	220	
1.20	16.5	1.0	220	
1.46	16.0	1.5	180	
1.92	15.0	1.8	200	
2.16	15.0	1.5	200	
· 2.92	13.0	2.8	210	
3.32	12.0	2.8	230	
3.93	12.0	2.6	180	
4.25	11.0	3.1	200	
4.81	10.5	3.5	220	

MPF 12 ft bgs							
Shut off			5:00 AM				
Time	Shut off Blower 1/26/1998 9:45:00 AM Time						
Elapsed,			TPH,				
day	O ₂ , %	CO ₂ , %	ppmv				
0.00	20.5	0.0	44				
0.14	20.0	0.0	44				
0.26	20.0	0.0	40				
0.46	20.0	0.0	40				
0.95	19.5	0.3	NR				
1.19	19.0	0.5	180				
1.47	18.5	0.5	120				
1.92	17.3	0.6	140				
2.17	17.0	0.6	240				
2.92	14.5	1.0	120				
3.33	13.0	1.0	180				
3.94	12.5	1.1	160				
4.25	11.9	1.6	160				
4.81	10.9	2.0	170				

MPF 17 ft bgs					
Shut off		26/1998 9:4	15:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	18.0	2.3	140		
0.13	16.5	2.8	140		
0.25	17.0	2.5	105		
0.47	15.5	6.5	105		
0.97	14.0	3.0	380		
1.18	13.5	3.5	360		
1.48	12.0	4.0	720		
1.93	9.3	4.5	700		
2.18	8.5	4.8	740		
2.94	5.0	6.5	1000		
3.34	4.5	6.5	600		
3.95	3.5	6.7	640		
4.26	3.0	7.1	760		

MPF 7 ft bgs					
Shut off	Blower 1/2	26/1998 9:4	15:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.0	44		
0.15	20.0	0.0	44		
0.46	20.0	0.0	48		
0.98	20.0	0.0	160		
1.20	20.5	0.5	160		
1.46	20.0	0.3	105		
1.92	19.5	0.3	100		
2.16	19.5	0.1	100		
2.92	18.5	0.5	78		
3.32	17.0	0.1	100		
3.93	17.0	0.1	90		
4.25	16.5	0.4	60		
4.81	16.0	0.5	64		

MDC 42 ft bac						
Chart off	MPG 12 ft bgs Shut off Blower 1/26/1998 9:45:00 AM					
	Blower 1/2	26/1998 9:4	15:00 AIVI			
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	17.0	2.5	105			
0.14	16.5	2.5	94			
0.26	16.5	2.5	84			
0.46	16.0	2.5	90			
0.95	15.5	3.0	NR			
1.19	15.0	3.0	280			
1.47	14.8	3.5	260			
1.92	14.0	3.8	260			
2.17	13.5	3.8	280			
2.93	12.5	4.5	270			
3.33	12.0	4.3	280			
3.94	11.5	4.2	270			
4.25	10.9	4.9	280			
4.81	10.2	5.0	250			

MPG 17 ft bgs				
Shut off	Blower 1/2	26/1998 9:4	15:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	19.0	1.0	300	
0.13	3.0	12.0	240	
0.16	3.0	12.0	740	
0.24	2.5	12.0	580	
0.48	12.0	2.0	600	
0.96	1.5	13.0	1400	
2.18	1.0	13.0	1100	

MPG 7 ft bgs					
Shut off	Blower 1/2	26/1998 9:4	5:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	0.3	58		
0.15	19.5	0.5	52		
0.47	19.0	0.5	62		
0.98	19.4	0.5	190		
1.20	19.0	0.6	190		
1.46	19.0	0.8	120		
1.92	18.5	0.8	160		
2.16	18.3	8.0	160		
2.92	17.3	1.0	160		
3.32	17.0	0.9	180		
3.93	16.5	0.8	160		
4.25 16.0		1.0 150			
4.81	15.8	1.3	160		

MPH 12 ft bgs					
Shut off	Blower 1/2	26/1998 9:4	5:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.5	0.3	50		
0.14	20.0	0.0	50		
0.26	20.0	0.0	40		
0.46	19.5	0.0	46		
0.95	19.5	0.0	NR		
1.19	19.5	0.3	140		
1.47	19.0	0.5	105		
1.93	18.3	0.3	105		
2.17	18.0	0.3	110		
2.93	16.5	0.6	78		
3.33	16.0	0.5	120		
3.94	14.5	0.5	100		
4.25	13.5	0.8	100		
4.81	12.5	0.8	110		

MPH 17 ft bgs					
Shut off	Blower 1/2	26/1998 9:4	15:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	0.8	120		
0.14	18.0	1.0	110		
0.25	17.5	1.0	100		
0.47	16.0	1.5	100		
0.96	13.5	2.5	340		
1.19	12.0	2.8	320		
1.47	10.3	3.3	280		
1.93	8.0	4.0	620		
2.18	7.0	4.0	680		
2.94	3.0	6.0	1000		
3.34	2.0	6.0	760		
3.95	1.0	6.0	680		

MPH 7 ft bgs						
Shut off	Shut off Blower 1/26/1998 9:45:00 AM					
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	20.9	0.0	32			
0.15	20.0	0.0	40			
0.47	20.0	0.0	44			
0.98	20.5	0.0	150			
1.20	20.5	0.0	160			
1.46	20.0	0.0	86			
1.92	20.0	0.0	100			
2.16	20.0	0.0	110			
2.92	19.5	0.3	58			
3.32	19.0	0.3	100			
3.93	18.5	0.0	86			
4.25 18.0		0.0	36			
4.81	17.3	0.0	26			

RESPIRATION TEST DATA

and

LINEAR REGRESSION RESULTS

April 1998

SUMMARY OUTPUT

MPA 7 ft bgs Regression of linear portion of oxygen versus timeplot

	0.998	0.995	0.995	0.213	11
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	9.37E-12		
	F	1873.2		
	SIN	85.167	0.045	
	SS	85.17	0.41	85.58
	df	-	တ	10
ANOVA		Regression	Residual	Total

	Coofficients	Coefficients Standard Error + Stat D volus	+ C+2+	onless a	1 outer 05%	1 longr 050/	Janes 05% James 05 0% Janes 05 0%	11mor 05 09/
	COGINCIENTS	Stational Little	ו סומו	ר-ימומכ	LUWE! 30/0	Opper 30%	LUWE! 33.078	Opper 30.078
Intercept	18.01	0.10	174.51	174.51 3.39E-17	17.78	18.25	17.78	18.25
X Variable 1	-1.77	0.04	-43.28	-43.28 9.37E-12	-1.86	-1.68	-1.86	-1.68

SUMMARY OUTPUT

MPA 12 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics								
Multiple R	0.989							
R Square	0.978							
Adjusted R Square	0.976							
Standard Error	0.530							
Observations	13							
ANOVA								
	ďf	SS	MS	F	Significance F			
Regression	-	136.65	136.646	485.9	1.88E-10			
Residual	7	3.09	0.281					
Total	12	139.74				_		
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.03	0.25	75.29	75.29 2.82E-16	18.47	19.59	18.47	19.59
X Variable 1	-1.96	0.09	-22.04	-22.04 1.88E-10	-2.16	-1.77	-2.16	-1.77

SUMMARY OUTPUT

MPA 17 ft bgs Regression of linear portion of oxygen versus time plot

				; ; ;	
Regression Statistics					
Multiple R	0.991				
R Square	0.982				
Adjusted R Square	0.980				
Standard Error	0.250				
Observations	11				
ANOVA					
	θf	SS	SW	F	Significance F
Regression	_	31.07	31.072	495.5	3.52E-09
Residual	တ	0.56	0.063		
Total	10	31.64			

Intercept X Variable 1

Upper 95.0% 12.02 -1.57

Upper 95% Lower 95.0%

Lower 95% 11.49 -1.93

P-value

t Stat

Coefficients Standard Error

11.49

12.02

99.10 5.50E-15 -22.26 3.52E-09

0.12

11.75

SUMMARY OUTPUT

MPB 7 ft bgs Regression of linear portion of oxygen versus time plot

												Upper 95% Lower 95.0% Upper 95.0%	20.20
												Lower 95.0%	11 01
											_	Upper 95%	70,70
							Significance F	1.57E-05				Lower 95%	10.1
							F	59.9				P-value	1, 11,
							SM	20.628	0.344			t Stat	0,00
						,	SS	20.63	3.44	24.07		Standard Error t Stat P-value	000
	0.926	0.857	0.843	0.587	12		df	-	10	11		Coefficients	
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total			

Intercept X Variable 1

21.01

19.75 -1.03

21.01

19.75 -1.03

6.15E-15 1.57E-05

72.42 -7.74

0.28

20.38 -0.80

SUMMARY OUTPUT

MPB 12 ft bgs Regression of linear portion of oxygen versus timeplot

egression Statistics	
Aultiple R	0.979
R Square	0.958
Adjusted R Square	0.955
Standard Error	0.542
Observations	13

	Significance F	6.12E-09			
	F	253.1			
	SM	74.303 253.1	0.294		
	SS	74.30	3.23	77.53	
	df	-	11	12	
ANOVA		Regression	Residual	Total	

		1	ا ـ .		i
			Upper 95.0%	21.26	-1.25
			Upper 95% Lower 95.0% Upper 95.0%	20.12	-1.65
			Upper 95%	21.26	-1.25
			Lower 95%	20.12	-1.65
			P-value	80.10 1.43E-16	-15.91 6.12E-09
0.294			t Stat	80.10	-15.91
3.23	77.53		Standard Error t Stat P-value	0.26	0.09
11	12		Coefficients	20.69	-1.45
Residual	Total			Intercept	X Variable 1

SUMMARY OUTPUT

MPB 17 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics					
Multiple R	0.997				
R Square	0.994				
Adjusted R Square	0.994				
Standard Error	0.224				
Observations	16				
ANOVA					
	df	SS	WS	F	Significance F
Regression	-	121.54	121.537 2427.6	2427.6	4.28E-17
Residual	14	0.70	0.050		
Total	15	122.24			

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	18.58	60.0	201.32	201.32 1.23E-25	18.38	18.78	18.38	18.78
X Variable 1	-1.80	0.04	-49.27	4.28E-17	-1.88	-1.72	-1.88	-1.72

SUMMARY OUTPUT

MPC 7 ft bgs Regression of linear portion of oxygen versus timeplot

מממנים ממממ					
Multiple R	0.991				
R Square	0.983				
usted R Square	0.981				
tandard Error	0.373				
Observations	11				
ANOVA					
	df	SS	WS	Ŧ	Significance F
Regression	_	71.00	71.003	510.0	3.10E-09
Residual	တ	1.25	0.139		
Total	10	72.26			

X Variable 1 Intercept

Upper 95% Lower 95.0% Upper 95.0%

Lower 95% 19.87 -1.90

P-value

t Stat

Standard Error

Coefficients 20.29 -1.72

20.71 -1.55

19.87 -1.90

20.71

109.84 2.18E-15 -22.58 3.10E-09

0.18 0.08

SUMMARY OUTPUT

MPC 12 ft bgs Regression of linear portion of oxygen versus timeplot

			Jpper 95% Lower 95.0% Upper 95.0%	81 1773 22.81
ce F	04		 7	3 22 81
Significance F	1.78E-04		Lower 95%	17 73
F	98.4		P-value	5 13F-06
SM	295.583 3.005		r t Stat	20.48
SS	295.58 15.03	310.61	Standard Error t Stat	66 C
β	1 5	9	Coefficients	70 02
	Regression Residual	Total		Infercent

SUMMARY OUTPUT

MPC 17 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics								
Multiple R	0.994							
R Square	0.988							
Adjusted R Square	0.987							
Standard Error	0.381							
Observations	10							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	_	97.48	97.485	672.7	5.24E-09			
Residual	ω	1.16	0.145					
Total	o	98.64				_		
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	9.62	0.19	51.06	51.06 2.40E-11	9.18	10.05	9.18	10.05
X Variable 1	-3.80	0.15	-25.94	-25.94 5.24E-09	-4.13	-3.46	-4.13	-3.46

SUMMARY OUTPUT

MPD 7 ft bgs Regression of linear portion of oxygen versus timeplot

doord oralismos					
Multiple R	0.981				
R Square	0.963				
justed R Square	0.959	•			
Standard Error	0.319				
Observations	12				
ANOVA					
	df.	SS	SM	F	Significance F
Regression	1	26.12	26.123	256.9	1.85E-08
Residual	10	1.02	0.102		
Total	7	27.14			

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Jpper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.86	0.15	136.29	136.29 1.11E-17	20.52	21.20	20.52	21.20
X Variable 1	-0.90	90.0	-16.03	-16.03 1.85E-08	-1.03	-0.78	-1.03	-0.78

SUMMARY OUTPUT

MPD 12 ft bgs Regression of linear portion of oxygen versus timeplot

0.904								
0.818								
0.781								
0.936								
7								
off S	S	SS	MS	Ŧ	Significance F			
1 19	19	19.65	19.654	22.4	5.17E-03			
5 4.38	4.	38	0.876					
6 24.03	24.	03						
Coefficients Standard Error t Stat	andard	Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0% Upper 95.0%	Upper 95.0%
21.13 0.53	0.5	3	39.52	1.96E-07	19.75	22.50	19.75	22.50
-1.99 0.42	0.42		-4.74	-4.74 5.17E-03	-3.08	-0.91	-3.08	-0.91

SUMMARY OUTPUT

MPD 17 ft bgs Regression of linear portion of oxygen versus timeplot

							F Significance F	588.2 8.92E-09			P-value Lower 95% Upper 95% Lower 95.0% Upper 95.0%	9.43E-13 19.39 20.59 19.39 20.59	4 45 500 4 45 500 4 45
							WS	163.650	0.278			76.57	DA 25 R COE_NO
							SS	163.65	2.23	165.88	Standard Error t Stat	0.26	000
	0.993	0.987	0.985	0.527	10		df	-	∞	6	Coefficients	19.99	7 00
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total		Intercept	Y Variable 1

SUMMARY OUTPUT

MPE 7 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics	
Multiple R	0.994
R Square	0.988
Adjusted R Square	0.986
Standard Error	0.349
Observations	O

	Significance F	5.77E-08		
	F	569.4		
	SW	69.308	0.122	
	SS	69.31	0.85	70.16
	df	-	7	œ
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.69	0.18	106.57	106.57 1.69E-12	19.26	20.13	19.26	20.13
X Variable 1	-2.39	0.10	-23.86	-23.86 5.77E-08	-2.62	-2.15	-2.62	-2.15

SUMMARY OUTPUT

MPE 12 ft bgs Regression of linear portion of oxygen versus time plot

								Significance F	4.28E-07		
								, A	1141.0		
Neglessi								SM	126.124 1141.0	0.111	
MITE 12 IL DYS								SS	126.12	0.55	126.68
		0.998	966.0	0.995	0.332	7		df	1	2	9
	Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

Intercept X Variable 1

Upper 95.0% 20.86 -4.67

Upper 95% Lower 95.0%

Lower 95% 19.88 -5.44

19.88 -5.44

20.86

P-value 1.34E-09 4.28E-07

t Stat 107.22 -33.78

Standard Error 0.19 0.15

Coefficients 20.37 -5.05

SUMMARY OUTPUT

MPE 17 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.969				
Standard Error	0.766				
Observations	8				
ANOVA					
	df	SS	MS	F	Significance F
Regression	-	128.42	128.418 218.9	218.9	6.00E-06
Residual	9	3.52	0.587		
Total	7	131.94			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	14.84	0.40	36.99	36.99 2.61E-08	13.86	15.83	13.86	15.83
X Variable 1	-6.30	0.43	-14.79	-14.79 6.00E-06	-7.35	-5.26	-7.35	-5.26

SUMMARY OUTPUT

MPF 7 ft bgs Regression of linear portion of oxygen versus time plot

Š					
	0.987				
ö	974				
ö	0.971				
0	283				
,-	12				
ľ	df	SS	MS	Ŧ	Significance F
	_	30.08	30.078	375.2	2.93E-09
`_	10	0.80	0.080		
	11	30.88			

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Lower 95.0% Upper 95.0%
Intercept	20.90	0.14	153.76	153.76 3.32E-18	20.60	21.21	20.60	21.21
X Variable 1	-0.97	0.05	-19.37	-19.37 2.93E-09	-1.08	-0.86	-1.08	-0.86

SUMMARY OUTPUT

MPF 12 ft bgs Regression of linear portion of oxygen versus timeplot

0.974	R Square 0.949	Adjusted R Square 0.943	Standard Error 0.616	Observations 11
	0.974			

	Significance F	4.19E-07		
	F	166.1		
	SM	63.090	0.380	
	SS	63.09	3.42	66.51
	df	-	თ	10
ANOVA		Regression	Residual	Total

	Upper 95.0%	21.31	-1.34
	Upper 95% Lower 95.0% Upper 95.0%	19.93	-1.91
	Upper 95%	21.31	-1.34
	Lower 95%	19.93	-1.91
	P-value	67.66 1.70E-13	-12.89 4.19E-07
	t Stat	99.79	-12.89
66.51	Standard Error t Stat P-value	0.30	0.13
10	Coefficients	20.62	-1.62
Total		Intercept	X Variable 1

MDE 47 ft h

MPF 17 ft bgs Regression of linear portion of <i>oxygen versus time</i> plot											
ar portion of <i>oxy</i> e								Significance F	2.00E-14		
on of line								Ā	1001.2		
Regression								MS	205.698 1001.2	0.205	
MPF 17 ft bgs								SS	205.70	2.88	208.57
		0.993	0.986	0.985	0.453	16		df	1	4	15
SUMMARY OUTPUT	Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

X Variable 1 Intercept

Upper 95% Lower 95.0% Upper 95.0%

Lower 95% 18.57 -2.63

19.39 -2.30

18.57 -2.63

19.39

2.33E-21 2.00E-14 P-value

99.56 -31.64 t Stat

0.19

Coefficients 18.98

Standard Error

SUMMARY OUTPUT

MPG 7 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics					
Multiple R	0.954				
R Square	0.910				
Adjusted R Square	0.901				
Standard Error	0.306				
Observations	12				
ANOVA					
	df	SS	MS	ц	Significance F
Regression	7	9.47	9.472	101.1	1.51E-06
Residual	10	0.94	0.094	,	
Total	1	10.41			

)	Coefficients	Standard Error	t Stat	t Stat P-value	Lower 95%	Upper 95%	Lower 95.0%	Lower 95.0% Upper 95.0%
Intercept	20.24	0.15	137.65	137.65 1.01E-17	19.91	20.57	19.91	20.57
X Variable 1	-0.54	0.05	-10.05	-10.05 1.51E-06	99.0-	-0.42	-0.66	-0.42

SUMMARY OUTPUT

MPG 12 ft bgs Regression of linear portion of oxygen versus timeplot

a .
Adjusted R Square
rror
Observations

	F				1
	Significance F	8.80E-09			
	F	299.4			
	SIM	30.581	0.102		
	SS	30.58	1.02	31.60	
	df	-	10	11	
ANOVA		Regression	Residual	Total	

	Upper 95.0%	19.33	-0.85
	Upper 95% Lower 95.0% Upper 95.0%	18.65	-1.10
	Upper 95%	19.33	-0.85
	 Lower 95%	18.65	-1.10
	P-value	123.94 2.87E-17	-17.30 8.80E-09
	t Stat	123.94	-17.30
31.60	Standard Error t Stat P-value	0.15	90.0
11	Coefficients	18.99	-0.98
Total		Intercept	X Variable 1

SUMMARY OUTPUT

MPG 17 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics								
Multiple R	0.987							
R Square	0.975							
Adjusted R Square	0.973							
Standard Error	0.285							
Observations	16							
ANOVA								
	βþ	SS	WS	Ŧ	Significance F			
Regression	_	44.10	44.103 544.1	544.1	1.32E-12			
Residual	14	1.13	0.081					
Total	15	45.24	•					
	Coefficients	its Standard Error t Stat		P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
					0.00		01 01	

14.02 -0.98

13.52

14.02 -0.98

13.52 -1.18

117.12 2.40E-22 -23.33 1.32E-12

0.12

13.77 -1.08

Intercept X Variable 1

SUMMARY OUTPUT

MPH 7 ft bgs Regression of linear portion of oxygen versus timeplot

	0.926	0.857	0.843		12
Regression Statistics				Standard Error	

	Significance F	1.56E-05		
	F	0.09		
	MS	7.832	0.130	
	SS	7.83	1.30	9.14
	df	-	10	7
ANOVA		Regression	Residual	Total

				Upper 95.0%	21.14	-0.35
				Upper 95% Lower 95.0% Upper 95.0%	20.37	-0.64
	•			Upper 95%	21.14	-0.35
o compounds	1.56E-05			Lower 95%	20.37	-0.64
•	0.09			P-value	119.63 4.09E-17	-7.75 1.56E-05
)	7.832	0.130		t Stat	119.63	-7.75
)	7.83	1.30	9.14	Standard Error t Stat P-value	0.17	0.06
5	-	10	11	Coefficients	20.76	-0.49
	Regression	Residual	Total		Intercept	X Variable 1

SUMMARY OUTPUT

MPH 12 ft bgs Regression of linear portion of oxygen versus time plot

0.981 0.963 0.959 0.358 12 1 10	Regression Statistics					
0.963 0.959 0.358 12 <i>of</i> SS 1 33.15 11 1.28	Multiple R	0.981				
re 0.959 0.358 12 df SS 10 1.28 11 33.15	R Square	0.963				
0.358 12 <i>df</i> SS 1 33.15 10 1.28	djusted R Square	0.959				
12 df SS 1 33.15 10 1.28	Standard Error	0.358				
df SS 1 33.15 10 1.28	Observations	12				
of SS 1 33.15 10 1.28 11 34.43	ANOVA					
1 33.15. 10 1.28 11 34.43		đf	SS	MS	F	Significance F
10 1.28	Regression	_	33.15	33.150	259.2	1.77E-08
77	Residual	10	1.28	0.128		
	Total	7	34.43			

X Variable 1

Intercept

Upper 95.0% 21.25 -0.88

Upper 95% Lower 95.0% 21.25 20.48 -0.88 -1.16

Lower 95% 20.48 -1.16

P-value

t Stat

Standard Error

Coefficients 20.86 -1.02

0.17 0.06

-16.10 1.77E-08 121.66 3.45E-17

SUMMARY OUTPUT

MPH 17 ft bgs Regression of linear portion of oxygen versus time plot

ics 0.988 0.977 re 0.974 0.535		ω,	7	4	Š	
Socion Statist Multiple R R Square Isted R Squal andard Error	gression Statistics			are	Standard Error 0.53	Observations 9

	Significance F	5.46E-07		
	, F	296.7		
	SM	84.925	0.286	
	SS	84.93	2.00	86.93
	df	Ψ-	7	8
ANOVA		Regression	Residual	Total

	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.35	0.27	71.11	71.11 2.86E-11	18.71	20.00	18.71	20.00
X Variable 1	-4.17	0.24	-17.22	-17.22 5.46E-07	4.74	-3.60	-4.74	-3.60

	MPA 12 ft bgs						
Shut off	Shut off Blower 4/21/1998 10:45:00 AM						
Time							
Elapsed,			TPH,				
day	O ₂ , %	CO ₂ , %	ppmv				
0.00	18.8	1.8	110				
0.07	18.1	1.7	130				
0.27	18.5	1.8	100				
0.88	17.2	2.2	160				
1.25	16.8	2.3	160				
1.88	16.0	2.8	150				
2.30	15.7	2.8	160				
2.92	13.1	3.5	180				
3.27	12.9	3.5	180				
3.96	11.2	4.4	200				
4.13	10.9	4.6	240				
4.24	10.2	4.6	220				
4.88	9.1	5.5	220				

MPA 17 ft bgs						
Shut off	Shut off Blower 4/21/1998 10:45:00 AM					
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	12.0	7.1	300			
0.05	11.7	6.9	280			
0.16	11.7	6.9	280			
0.26	11.1	7.0	250			
0.86	10.1	7.9	280			
1.06	9.5	8.0	320			
1.25	9.3	7.9	280			
1.88	8.6	8.9	280			
2.05	8.4	8.9	280			
2.29	8.0	8.9	300			
2.91	6.5	9.1	300			
3.03	7.2	8.8	290			
3.26	6.8	9.2	320			
3.95	5.2	10.0	320			
4.24	4.9	9.2	340			
4.87	3.9	10.2	360			

	MPA 7 ft bgs						
Shut off	Shut off Blower 4/21/1998 10:45:00 AM						
Time							
Elapsed,			TPH,				
day	O ₂ , %	CO ₂ , %	ppmv				
0.00	18.1	2.5	250				
0.08	17.9	2.3	260				
0.27	17.6	2.4	230				
0.88	16.0	3.0	240				
1.26	15.6	3.0	250				
1.89	14.9	3.6	280				
2.30	14.2	3.1	280				
2.93	12.9	4.1	310				
3.27	12.3	4.2	300				
3.96	11.0	5.0	300				
4.88	9.2	5.4	340				
5.25	10.2	4.8	360				
7.14	10.8	4.8	350				

	MPB 12 ft bgs						
Shut off	Blower 4/2	1/1998 10:	45:00 AM				
Time							
Elapsed,			TPH,				
day	O ₂ , %	CO ₂ , %	ppmv				
0.00	20.3	0.6	53				
0.07	19.8	0.5	70				
0.27	19.9	0.8	76				
0.88	19.8	0.7	100				
1.26	19.2	0.7	90				
1.88	19.0	0.7	88				
2.30	18.0	0.7	100				
2.92	16.5	0.8	90				
3.27	16.2	0.8	110				
3.96	15.0	1.5	100				
4.13	14.6	1.4	150				
4.24	14.1	1.5	160				
4.88	13.1	2.2	140				

MPB 17 ft bgs						
Shut off	Shut off Blower 4/21/1998 10:45:00 AM					
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	19.0	1.5	96			
0.06	18.3	1.5	180			
0.16	18.4	1.5	200			
0.26	18.1	1.7	150			
0.87	17.2	2.2	180			
1.07	16.3	2.5	220			
1.25	16.2	2.5	210			
1.88	15.1	3.1	200			
2.06	15.0	3.1	220			
2.29	14.1	3.3	220			
2.91	13.4	3.7	200			
3.04	13.3	3.5	220			
3.26	12.5	3.8	240			
3.95	11.7	4.3	235			
4.24	10.9	4.1	230			
4.87	9.9	4.7	240			

	MPB 7 ft bgs					
Shut off	Blower 4/2	1/1998 10:	45:00 AM			
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	19.1	0.4	42			
0.08	20.2	0.3	84			
0.27	20.1	0.4	74			
0.89	20.0	0.5	60			
1.26	19.9	0.6	76			
1.89	19.4	0.7	78			
2.30	19.1	0.6	110			
2.93	18.4	0.7	80			
3.27	18.0	0.5	90			
3.96	17.1	0.8	100			
4.25	16.6	0.8	76			
4.88	15.8	0.8	84			

MPC 12 ft bgs				
Shut off	Blower 4/2	1/1998 10:	45:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.7	48	
0.07	19.3	0.6	90	
0.27	18.0	0.8	94	
0.88	16.4	1.9	130	
1.26	8.2	4.7	160	
1.89	6.4	7.1	200	
2.30	2.1	10.5	200	
2.92	8.9	5.8	180	
3.27	6.5	6.7	220	
3.96	9.1	5.6	220	
4.13	8.8	5.2	190	
4.25	7.9	5.6	190	
4.88	9.5	5.0	200	

	MPC 17 ft bgs			
Shut off	Shut off Blower 4/21/1998 10:45:00 AM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	10.0	9.1	300	
0.06	8.7	3.4	320	
0.17	9.0	8.2	320	
0.26	8.6	3.4	270	
0.87	6.7	9.4	280	
1.07	5.6	10.1	330	
1.25	5.2	10.0	320	
1.88	2.0	11.9	310	
2.06	1.7	11.8	300	
2.29	1.1	11.2	310	
2.91	0.3	12.0	310	
3.04	0.2	12.1	340	
3.26	0.2	11.9	340	

	MPC 7 ft bgs				
Shut off	Blower 4/2	1/1998 10:	45:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	0.6	32		
0.08	20.0	0.5	86		
0.27	20.0	0.6	70		
0.89	18.8	0.7	68		
1.26	18.8	0.7	90		
1.89	17.2	0.8	100		
2.31	16.0	0.9	96		
2.93	14.8	1.3	120		
3.28	14.3	1.4	120		
3.97	13.9	2.1	120		
4.25	13.0	1.9	130		
4.88	13.7	1.9	140		

MPD 12 ft bgs					
Shut off	Shut off Blower 4/21/1998 10:45:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.1	30		
0.07	20.4	0.0	70		
0.27	20.3	0.0	66		
0.88	20.1	0.2	40		
1.26	19.7	0.0	70		
1.89	18.0	0.5	60		
2.30	15.2	0.3	60		
2.92	15.1	0.5	30		
3.27	15.3	0.5	64		
3.96	14.5	0.7	60		
4.25	13.9	0.7	110		
4.88	13.8	0.6	58		

<u> </u>	MPD 17 ft bgs			
Shut off	Blower 4/2	1/1998 10:	45:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.8	0.7	96	
0.06	19.5	0.6	120	
0.17	19.3	0.6	120	
0.26	18.6	0.6	100	
0.87	15.8	1.2	140	
1.07	14.0	1.5	200	
1.25	13.0	1.7	170	
1.88	11.0	2.7	180	
2.06	10.2	3.1	200	
2.29	9.0	3.0	200	
2.91	8.1	3.7	190	
3.04	7.9	3.6	210	
3.26	7.1	3.8	230	
3.95	5.2	4.5	210	
4.13	5.1	4.5	230	
4.24	4.9	4.3	290	
4.87	4.3	5.0	250	

MPD 7 ft bgs			
Shut off	Blower 4/2	1/1998 10:	45:00 AM
Time			·
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.5	0.2	27
0.08	20.5	0.1	66
0.28	20.4	0.0	60
0.89	20.4	0.0	48
1.26	20.4	0.0	60
1.89	19.4	0.4	60
2.31	18.9	0.4	58
2.93	18.0	0.3	58
3.28	17.8	0.2	60
3.97	17.1	0.7	50
4.25	16.9	0.5	46
4.89	16.5	0.4	20

	MPE 12 ft bgs				
Shut off	Blower 4/2	1/1998 10:	45:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.2	0.6	70		
0.07	19.8	0.5	90		
0.27	19.2	0.7	84		
0.88	16.3	1.3	110		
1.26	13.8	1.8	110		
1.89	11.2	3.2	150		
2.30	8.4	4.2	180		
2.92	8.1	4.8	170		
3.27	7.9	4.8	200		
3.96	7.1	5.8	230		
4.25	6.8	5.4	250		
4.88	6.5	5.8	200		

	MPE 17 ft bgs				
Shut off	Blower 4/2	1/1998 10:	45:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	15.0	4.8	200		
0.06	14.3	4.3	200		
0.17	14.3	4.3	190		
0.26	13.7	4.6	160		
0.87	8.9	6.1	240		
1.07	7.0	6.8	160		
1.25	6.4	7.0	200		
1.88	4.1	8.9	200		
2.06	3.8	9.1	220		
2.29	3.1	9.0	220		
2.91	1.1	9.9	240		
3.04	3.2	8.8	240		
3.26	2.0	9.8	240		

	MPE 7 ft bgs				
Shut off	Blower 4/2	1/1998 10:	45:00 AM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	19.5	0.8	84		
0.08	19.5	0.7	110		
0.28	19.0	8.0	98		
0.89	18.0	1.1	110		
1.26	17.0	1.1	120		
1.89	14.9	1.7	120		
2.31	13.6	2.0	160		
2.93	12.7	2.5	180		
3.28	12.2	2.4	180		
3.97	11.2	3.2	180		
4.25	11.0	3.0	160		
4.89	10.8	4.4	160		
8.14	11.2	3.0	160		

	MPF 12 ft bgs			
Shut off	Blower 4/2	1/1998 10:	45:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.8	0.2	48	
0.07	19.2	0.0	70	
0.27	20.0	0.0	68	
0.88	20.0	0.1	46	
1.26	19.2	0.2	58	
1.89	18.0	0.6	70	
2.30	16.7	0.5	68	
2.92	16.1	0.7	68	
3.27	15.1	0.5	76	
3.96	14.3	8.0	95	
4.25	13.2	0.9	100	
4.88	13.0	1.0	100	

	MPF 17 ft bgs				
Shut off	Shut off Blower 4/21/1998 10:45:00 AM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	19.8	2.1	185		
0.06	17.9	2.0	180		
0.17	18.0	1.9	180		
0.26	18.0	1.9	130		
0.87	17.1	2.3	180		
1.07	16.3	2.5	200		
1.25	16.1	2.5	170		
1.88	14.9	3.1	200		
2.06	14.2	3.2	200		
2.29	13.7	3.1	210		
2.92	11.9	3.5	200		
3.04	11.5	3.4	200		
3.26	10.8	3.6	210		
3.95	9.0	4.1	195		
4.13	8.8	4.0	250		
4.24	8.1	4.0	260		
4.87	7.4	4.5	230		

	MPF 7 ft bgs			
Shut off	Blower 4/2	1/1998 10:	45:00 AM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.6	0.4	33	
0.08	20.5	0.3	78	
0.28	20.5	0.3	68	
0.89	20.4	0.3	68	
1.26	20.2	0.3	62	
1.89	19.2	0.6	62	
2.31	18.9	0.5	76	
2.93	17.8	0.6	30	
3.28	17.6	0.4	90	
3.97	17.1	0.7	90	
4.25	16.8	0.6	60	
4.89	16.0	0.5	36	

	MPG 1	2 ft bgs	
Shut off	Blower 4/2	1/1998 10:	45:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	19.7	1.5	112
0.08	18.3	1.5	130
0.27	18.5	1.5	120
0.88	18.1	1.7	110
1.26	17.9	1.7	130
1.89	17.1	2.2	110
2.30	16.8	2.3	160
2.93	16.1	2.4	120
3.27	16.0	2.3	180
3.96	15.0	3.1	170
4.25	14.8	2.9	170
4.88	14.2	3.2	180
5.13	15.0	2.9	180

	MPG 1	7 ft bgs	
Shut off	Blower 4/2	1/1998 10:	45:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	14.2	5.4	335
0.06	13.5	5.2	360
0.17	14.0	5.0	360
0.26	13.7	5.2	320
0.87	12.9	5.7	300
1.07	12.1	5.8	360
1.25	12.1	5.9	360
1.88	11.8	6.3	350
2.06	11.4	6.5	360
2.30	10.9	6.4	380
2.92	10.4	6.8	380
3.04	10.5	6.5	350
3.26	10.3	6.3	360
3.96	9.6	7.1	320
4.24	9.2	6.8	290
4.87	8.8	7.2	360

	MPG 7	ft bgs	
Shut off	Blower 4/2	1/1998 10:	45:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.2	0.5	47
0.09	20.2	0.5	86
0.28	20.0	0.6	72
0.89	20.0	0.6	68
1.27	18.9	0.7	74
1.89	19.2	0.8	78
2.31	19.4	0.6	92
2.93	18.9	0.8	46
3.28	18.7	0.6	120
3.97	18.1	0.9	100
4.25	17.9	0.8	98
4.89	17.2	0.8	90

	MPH 1	2 ft bgs				
Shut off Blower 4/21/1998 10:45:00 AM						
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	20.9	0.3	40			
0.08	20.3	0.1	66			
0.27	20.1	0.1	60			
0.88	20.1	0.2	58			
1.26	20.0	0.2	62			
1.89	19.2	0.5	60			
2.30	18.9	0.4	76			
2.93	18.1	0.5	40			
3.27	17.8	0.3	44			
3.96	16.8	0.6	40			
4.25	16.1	0.5	100			
4.88	15.6	0.5	56			
6.13	16.6	0.7	130			

<u> </u>	MPH 1	7 ft bgs	
Shut off	Blower 4/2	1/1998 10:	45:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.0	0.8	140
0.07	18.9	0.7	140
0.17	18.8	0.8	150
0.26	18.2	0.9	100
0.88	15.4	1.9	180
1.07	14.3	2.2	180
1.25	13.9	2.2	180
1.88	11.1	3.1	180
2.06	11.7	3.3	220
2.30	11.0	3.4	240
2.92	10.1	3.9	210
3.04	9.8	3.8	210
3.27	9.4	3.9	220
3.96	8.4	4.5	220
4.13	8.1	4.6	230
4.24	7.9	4.6	230
4.87	7.1	5.1	250

	MPH 7	ft bgs	
Shut off	Blower 4/2	1/1998 10:	45:00 AM
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.9	0.0	15
0.09	20.5	0.0	70
0.28	20.2	0.0	56
0.89	20.2	0.0	60
1.27	20.2	0.0	66
1.89	19.8	0.4	56
2.31	20.1	0.3	60
2.93	19.8	0.3	0
3.28	19.5	0.2	80
3.97	18.9	0.6	58
4.25	18.1	0.2	45
4.89	18.0	0.3	10

RESPIRATION TEST DATA

and

LINEAR REGRESSION RESULTS

August 1998

MPA 7 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics						
Multiple R	0.993					
R Square	0.986					
Adjusted R Square	0.981					
Standard Error	0.438					
Observations	2					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	_	40.62	40.624 211.5	211.5	7.05E-04	
Residual	က	0.58	0.192			
Total	4	41.20				

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Lower 95.0% Upper 95.0%
Intercept	11.84	0.42	28.03	9.97E-05	10.50	13.19	10.50	13.19
X Variable 1	-7.34	0.50	-14.54	-14.54 7.05E-04	-8.95	-5.73	-8.95	-5.73

SUMMARY OUTPUT

MPA 12 ft bgs Regression of linear portion of oxygen versus timeplot

0.988							
0.977							
0.974							
0.745							
11							
df	SS	MS	Ŧ	Significance F			
1 2	211.23	211.234	380.7	1.13E-08			
တ	4.99	0.555					
10 2	216.23						
Coefficients Stand	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
16.93	0.44	38.12	2.92E-11	15.93	17.94	15.93	17.94
-5.41	0.28	-19.51	-19.51 1.13E-08	-6.04	-4.78	-6.04	-4.78

SUMMARY OUTPUT

MPA 17 ft bgs Regression of linear portion of oxygen versus time plot

WS
31.072
0.063
Standard Error t Stat P-value
99.10 5.50E-15
-22.26 3.52E-09

SUMMARY OUTPUT

MPB 7 ft bgs Regression of linear portion of oxygen versus time plot

Regression Statistics	tics
Multiple R	0.989
R Square	0.978
Adjusted R Square	ire 0.976
Standard Error	- 0.662
Observations	12

ANOVA

				2.0%	_	.	I
				Upper 95	20.71	-2.64	
				Jpper 95% Lower 95.0% Upper 95.0%	18.90	-3.26	
	ı		Ī	Upper 95%	20.71	-2.64	
Significance F	1.24E-09			Lower 95%	18.90	-3.26	
щ	447.3			P-value	48.68 3.23E-13	-21.15 1.24E-09	
MS	195.851	0.438		t Stat	48.68	-21.15	
SS	195.85	4.38	200.23	Standard Error t Stat	0.41	0.14	
qŧ	-	9	11	Coefficients	19.80	-2.95	
	Regression	Residual	Total		Intercept	X Variable 1	

SUMMARY OUTPUT

MPB 12 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics	
Multiple R	0.988
R Square	0.976
Adjusted R Square	0.973
Standard Error	0.578
Observations	ത

		ı		
	Significance F	5.87E-07		
	F	290.5		
	MS	97.159	0.334	
	SS	97.16	2.34	99.50
	βþ	-	7	8
ANOVA		Regression	Residual	Total

	Upper 95.0%	21.87	-3.97
	Upper 95% Lower 95.0% Upper 95.0%	20.06	-5.25
	Upper 95%	21.87	-3.97
	Lower 95%	20.06	-5.25
	P-value	54.82 1.76E-10	.17.04 5.87E-07
	t Stat	54.82	-17.04
99.50	Standard Error t Stat P-value	0.38	0.27
8	Coefficients	20.96	4.61
Total		Intercept	X Variable 1

SUMMARY OUTPUT

MPB 12 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics	S
Multiple R 0.991	0.991
R Square	0.982
Adjusted R Square	0.980
Standard Error	0.712
Observations	17

Significance F	1.97E-14		
F	8008		
WS	405.703	0.507	
SS	405.70	7.60	413.30
df	1	15	16
	Regression	Residual	Total
	MS F	df SS MS F 3 1 405.70 405.703 800.8	df SS MS F 3 1 405.70 405.703 800.8 15 7.60 0.507

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.57	0.37	56.26	56.26 7.24E-19	19.79	21.35	19.79	21.35
X Variable 1	-4.33	0.15	-28.30	-28.30 1.97E-14	-4.65	-4.00	-4.65	-4.00

SUMMARY OUTPUT

MPB 17 ft bgs Regression of linear portion of oxygen versus timeplot

								MS F Significance F	160.601 760.8 1.66E-11	0.211
								SS	160.60	0 30 0
	0.993	0.986	0.984	0.459	13			af	1	7
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	AVONA	CAONE		Regression	Residual

Intercept X Variable 1

Upper 95.0% 17.08 -4.44

Lower 95.0% 16.02 -5.21

Upper 95% 17.08 -4.44

Lower 95% 16.02 -5.21

P-value

Standard Error

Coefficients 16.55 -4.82

162.92

42

Total

7.61E-16 1.66E-11

t Stat 68.79 -27.58

0.24

SUMMARY OUTPUT

MPC 7 ft bgs Regression of linear portion of oxygen versus time plot

											Lower 95.0% Upper 95.0%	0 20.90	5 -2.07
												20.10	-2.35
							•	1			Upper 95%	20.90	-2.07
							Significance F	3.22E-10			Lower 95%	20.10	-2.35
							Ŧ	1358.7			P-value	117.94 2.98E-14	-36.86 3.22E-10
							MS	107.865	0.079		t Stat	117.94	-36.86
					_		SS	107.86	0.64	108.50	Standard Error t Stat	0.17	90.0
	0.997	0.994	0.993	0.282	10		df	-	ω	6	Coefficients	20.50	-2.21
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total		Intercept	X Variable 1

SUMMARY OUTPUT

MPC 12 ft bgs Regression of linear portion of oxygen versus timeplot

	0.984	0.968	0.964	0.852	7
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	5.10E-08		
	F	269.9		
	MS	196.142	0.727	l
	SS	196.14	6.54	202.68
	β	-	တ	10
ANOVA		Regression	Residual	Total

Kesiduai	3 7	6.54	0.727					
Total	10	202.68		•				
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	19.85	0.53	37.42	37.42 3.45E-11	18.65	21.05	18.65	21.05
X Variable 1	-6.13	0.37	-16.43	-16.43 5.10E-08	-6.97	-5.29	-6.97	-5.29

SUMMARY OUTPUT

MPC 12 ft bgs Regression of linear portion of oxygen versus timeplot

egression Statistics					
Multiple R	0.986				
R Square					
Adjusted R Square	0.965				
Standard Error	0.615				
Observations	9				
ANOVA					
	φ	SS	MS	щ	Significance F
Regression	1	52.32	52.318	138.1	3.00E-04
Residual	4	1.52	0.379		
Total	S)	53.83			

	Coefficients	Standard Error	t Stat	t Stat P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	20.38	0.50	40.95	40.95 2.12E-06	19.00	21.76	19.00	21.76
X Variable 1	-6.92	0.59	-11.75	-11.75 3.00E-04	-8.56	-5.29	-8.56	-5.29

SUMMARY OUTPUT

MPC 17 ft bgs Regression of linear portion of oxygen versus timeplot

	0.994	0.988	0.987	0.381	10
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

1		1		
	Significance F	5.24E-09		
	F	672.7		
	SW	97.485	0.145	Ì
	SS	97.48	1.16	98.64
	βþ	1	∞	6
ANOVA		Regression	Residual	Total

					The second second second second			
	Coefficients	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95% 1	Lower 95.0%	Lower 95.0% Upper 95.0%
Intercept	9.62	0.19	51.06	51.06 2.40E-11	9.18	10.05	9.18	10.05
X Variable 1	-3.80	0.15	-25.94	-25.94 5.24E-09	-4.13	-3.46	-4.13	-3.46

Regression Statistics Multiple R R Square Adjusted R Square Standard Error	Statistics B.R. 0.981 are 0.963 Square 0.956 Error 0.431 tions 8
--	---

	Significance F	1.67E-05		
	F	154.2		
	SM	28.602	0.186	
	SS	28.60	1.1	29.72
	fρ	-	9	7
ANOVA		Regression	Residual	Total

		ŀ	اما		
			Upper 95.0%	22.27	-1.27
			Lower 95.0%	20.83	-1.89
			Upper 95%	22.27	-1.27
			Lower 95%	20.83	-1.89
			P-value	4.34E-10	-12.42 1.67E-05
0.186			t Stat	73.30	-12.42
1.11	79.17		Standard Error	0.29	0.13
1 0	,		Coefficients	21.55	-158
Residual	i otal			Intercept	X Variable 1
	1.11	6 1.11 7 29.72	6 1.11 7 29.72	6 1.11 0.186 7 29.72 Coefficients Standard Error t Stat P-value	6 1.11 0.186 7 29.72 Coefficients Standard Error t Stat P-value Lower 95% to 21.55 0.29 73.30 4.34E-10 20.83

SUMMARY OUTPUT

MPD 12 ft bgs Regression of linear portion of oxygen versus timeplot

Regression Statistics								
Multiple R	0.991							
R Square	0.981							
Adjusted R Square	0.980							
Standard Error	0.690							
Observations	16							
ANOVA								
	Дþ	SS	MS	F	Significance F	•		
Regression	~	346.09	346.092	726.7	1.82E-13			
Residual	4	6.67	0.476					
Total	15	352.76						
	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
Intercept	22.40	0.33	67.41	5.41E-19	21.69	23.11	21.69	23.11
X Variable 1	-3.21	0.12	-26.96	1.82E-13	-3.46	-2.95	-3.46	-2.95

SUMMARY OUTPUT

MPD 17 ft bgs Regression of linear portion of oxygen versus timeplot

0.983 0.966 0.962 1.047	0.983 0.966 0.962 1.047		SS WS 338.66 338.662 12.07 1.097
		0.983 0.966 0.962 1.047 13 df SS	0.983 0.966 0.962 1.047 13 df SS 1 338.66 11 12.07
		0.966 0.962 1.047 13 df SS 1 338.66	0.966 0.962 1.047 13 df SS 1 338.66 11 12.07
<u>e</u> .	ĺ	0.962 1.047 13 df SS 1 338.66	0.962 1.047 13 <i>df</i> SS 1 338.66 11 12.07
		1.047 13 df SS 1 338.66	1.047 13 <i>af</i> SS 1 338.66 11 12.07
		13 df SS MS 1 338.66 338.662	SS MS 338.66 338.662 12.07 1.097
	3	df SS MS 1 338.66 338.662	of SS MS 1 338.66 338.662 11 12.07 1.097
		1 338.66 338.662	1 338.66 338.662 11 12.07 1.097
df SS	SS MS		11 12.07

X Variable 1

Intercept

Upper 95.0% 19.61 -6.72

Upper 95% Lower 95.0%

Lower 95% 17.16 -8.65

P-value

t Stat

Standard Error

Coefficients 18.38 -7.69

2.35E-12 2.14E-09

33.02 -17.57

0.56

17.16 -8.65

19.61 -6.72

	ļ				
	0.993	0.987	0.985	0.342	8
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	7.06E-07		
	F	452.0		
	SM	52.799	0.117	
	SS	52.80	0.70	53.50
	β	-	9	7
ANOVA		Regression	Residual	Total

							,00 10	/00 20
	Coefficients	Standard Error	t Stat	t Stat P-value	Lower 95%	Upper 95%	Lower 95.0%	Lower 95.0% Upper 95.0%
Intercent	18.99	0.23	81.41	81.41 2.31E-10	18.42	19.56	18.42	19.56
X Variable 1	27 14	0.10	-21.26	-21.26 7.06E-07	-2.39	-1.90	-2.39	-1.90
	i							

SUMMARY OUTPUT

MPE 12 ft bgs Regression of linear portion of oxygen versus time plot

								F Significance F	9 717.3 2.59E-08		
								SW	101.069	0.141	
						_		SS	101.07	0.99	102.06
	0.995	0.890	0.989	0.375	6			df	1	7	ဆ
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations		ANOVA		Regression	Residual	Total

Intercept X Variable 1

 Upper 95%
 Lower 95.0%
 Upper 95.0%

 20.71
 19.52
 20.71

 -4.77
 -5.70
 -4.77

Lower 95% 19.52 -5.70

P-value 1.25E-11 2.59E-08

80.04 -26.78

0.25 0.20

t Stat

Standard Error

Coefficients 20.11 -5.23

	0.995	0.990	0.986	0.397	4
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	4.83E-03			
	F	205.7			
	NIS	32.435	0.158		
	SS	32.43	0.32	32.75	
	df.	-	7	3	
ANOVA		Regression	Residual	Total	

			%		
			Upper 95.0	13.75	-5.95
			Upper 95% Lower 95.0% Upper 95.0%	10.80	-11.05
			Upper 95%	13.75	-5.95
4.83E-03			Lower 95%	10.80	-11.05
205.7			P-value	35.71 7.83E-04	.14.34 4.83E-03
32.435	0.158		t Stat	35.71	-14.34
32.43	0.32	32.75	Standard Error t Stat P-value	0.34	0.59
-	7	3	Coefficients	12.27	-8.50
Regression	Residual	Total		Intercept	X Variable 1
l			1		

SUMMARY OUTPUT

MPF 7 ft bgs Regression of linear portion of oxygen versus timeplot

-1.10	-1.71	-1.10	-1.71	-10.72 5.05E-06	-10.72	0.13	-1.40	X Variable 1
22.23	20.47	22.23	20.47	56.15 1.12E-11	56.15	0.38	21.35	Intercept
Upper 95.0%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95%	Lower 95%	P-value	t Stat	Coefficients Standard Error t Stat P-value	Coefficients	
						46.53	6	Total
					0.379	3.03	ω	Residual
			5.05E-06	114.8	43.495	43.49	-	Regression
		•	Significance F	F	MS	SS	df	
								ANOVA
							10	Observations
							0.615	Standard Error
							0.927	Adjusted R Square
							0.935	R Square
							0.967	Multiple R
								Regression Statistics

SUMMARY OUTPUT

MPF 12 ft bgs Regression of linear portion of oxygen versus time plot

						SS MS F Significance F	184.61 184.612 595.2 1.36E-11	3.72 0.310	188.33
0.990	0.980	0.979	0.557	14		σţ	1	12	13
Multiple K	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total

						,020	700 10	11 12 2 2 0 E 0 0 V
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	LOWer 95.0%	Lower 95.0% Upper 95.0%
Intercent	22.06	0.27	80.59	80.59 8.88E-18	21.47	22.66	21.47	22.66
X Variable 1	-2.44	0.10	-24.40	-24.40 1.36E-11	-2.65	-2.22	-2.65	-2.22

	966.0	0.992	0.991	0.367	20
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	3.68E-20		
	F	2137.0		
	SM	287.528 2137.0	0.135	
	SS	287.53	2.42	289.95
	β	1	18	19
ANOVA		Regression	Residual	Total

MPG 7 ft bgs Regression of linear portion of oxygen versus timeplot

0 992							,	
	0.992							
	0.983							
	0.981							
	0.326							
	10							
						_		
	df	SS	MS	Ŧ	Significance F			
	1	49.88	49.876 470.2	470.2	2.16E-08			
	ω	0.85	0.106					
	6	50.73						
	Coefficients	Standard Error t Stat	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
	20.30	0.20	100.83	100.83 1.05E-13	19.84	20.77	19.84	20.77
	-1.50	0.07	-21.68	-21.68 2.16E-08	-1.66	-1.34	-1.66	-1.34
			-					

SUMMARY OUTPUT

MPG 12 ft bgs Regression of linear portion of oxygen versus timeplot

							Significance F	4.24E-16			
								131.214 2370.1	0.055		
							SS	131.21	0.72	131.93	
	0.997	0.995	0.994	0.235	15		đţ	1	13	4	
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	ANOVA		Regression	Residual	Total	

Intercept X Variable 1

Upper 95% Lower 95.0% Upper 95.0%

Lower 95% 18.22 -2.14

t Stat P-value 161.88 7.18E-23 -48.68 4.24E-16

0.11

18.47

Coefficients Standard Error

18.22 -2.14

18.71

18.71

	0.985	0.969	0.967	0.376	4
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	1.87E-10			
	F	380.4			
	SW	53.734	0.141		
	SS	53.73	1.69	55.43	
	σŧ	1	12	13	
ANOVA		Regression	Residual	Total	

	_		_
	Upper 95% Lower 95.0% Upper 95.0%	11.90	-2.13
	Lower 95.0%	11.09	-2.67
1	Upper 95%	11.90	-2.13
	Lower 95%	11.09	-2.67
	P-value	61.62 2.21E-16	-19.50 1.87E-10
	t Stat	61.62	-19.50
2	Standard Error t Stat P-value	0.19	0.12
2	Coefficients		-2.40
ıotai		Intercent	X Variable 1
•	•	•	

	0.974	0.949	0.941	0.626	6
Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

ì	щ			1
	Significance F	9.14E-06		
	F	129.2		
	MS	50.664	0.392	
	SS	50.66	2.74	53.41
	ηþ	-	7	8
ANOVA		Regression	Residual	Total

1	-	50.66	50.664	129.2	9.14E-06			
. ^		2.74	0.392					
- ∞		53.41						
Coefficient	nts	Standard Error t Stat P-value	t Stat	P-value	Lower 95%	Upper 95%	Upper 95% Lower 95.0% Upper 95.0%	Upper 95.0%
21.95		0.41	54.05 1	1.95E-10	20.99	22.91	20.99	22.91
-1 77		0.16	-11.37	-11.37 9.14E-06	-2.13	-1.40	-2.13	-1.40

		0.993	0.985	0.984	0.544	17
SUMMART COLLEGE	Regression Statistics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations

	Significance F	3.49E-15			
	F	1012.1			
	MS	299.378	0.296		
	SS	299.38	4.44	303.82	
	df	-	15	16	
ANOVA		Regression	Residual	Total	

				ı					•
					Upper 95.0%	20 00	76.77	78 0	-2.04
					Upper 95% Lower 95.0% Upper 95.0%	70 70	7.01	30.0	-5.23
			-		Upper 95%		76.77	700	-2.84
	3.49E-15				Lower 95%		21.81		-3.25
	1012.1				P-value		85.42 1.40E-21		-31.81 3.49E-15
	299.378 1012.1	0.296			t Stat	1500	85.42		-31.81
	299.38	4.44	303.82		Standard Fron t Stat P-value	Standard Enrol	0.26		0.10
3	,	15	16		Coefficiente	COGINCIONS	22.37		-3.04
	Regression	Residual	Total				Intercent	3000000	X Variable 1
	1				•				

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	0.992	0.985	0.984	0.606	16	
Signal Orationics	Multiple R	R Square	Adjusted R Square	Standard Error	Observations	

ANOVA

Significance E	2 525 44	3.33E-14	
F	0220	0.52.0	
MS	339 101	0.368	,
SS	339.10	5.15	344.25
d‡	_	14	15
	Kegression	Residual	Total

	Opper 95% Lower 95.0% Upper 95.0%	12.00	19.54	4.24
	Lower 95.0%	18 22	20.02	4.88
7020	opper 95%	19.54		4.24
/ Ower 050/	EUNG! 30/0	18.32		4.00
P-value		6.57 6.44E-19	-30.36 3.53E-14	0.00-11
t Stat	12	00.57	-30.36	
Standard Error t Stat	00.0	0.20	0.15	
Coefficients	18 93	2 .	4.56	
	Intercept	X Variable 4	A Variable	

	MPA 12 ft bgs				
Shut of	f Blower 8/	4/1998 2:4	5:00 PM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	17.5	3.5	140		
0.35	16.0	3.5	180		
0.74	13.0	4.5	220		
0.98	11.0	5.5	200		
1.11	10.0	5.0	200		
1.23	10.0	6.0	220		
1.73	7.0	7.0	220		
1.98	6.0	8.0	280		
2.11	5.0	8.0	260		
2.24	5.0	8.0	220		
2.73	3.5	11.0	260		

MPA 17 ft bgs					
Shut of	f Blower 8/	4/1998 2:4	5:00 PM		
Time Elapsed, TPH, day O ₂ , % CO ₂ , % ppmv					
0.00	2.0	19.0	1400		
0.09	2.0	14.5	1600		
0.34	0.5	15.0	1600		
1.27	0.0	16.0	720		
1.77	0.0	15.0	140		

	MPA 7 ft bgs				
	Blower 8/	4/1998 2:4	5:00 PM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	12.0	9.0	520		
0.76	6.0	11.5	600		
0.86	5.0	12.0	1400		
0.98	5.0	12.0	1200		
1.11	4.0	13.0	1400		
1.25	4.0	13.0	620		
1.77	2.5	13.5	620		
2.26	2.0	14.0	620		

MPB 12 ft bgs					
Shut off Blower 8/4/1998 2:45:00 PM					
Time Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	1.0	85		
0.35	19.5	0.5	100		
0.74	18.0	1.0	100		
0.99	17.0	1.5	100		
1.23	16.0	1.5	120		
1.73	13.0	3.0	140		
1.85	12.0	3.2	220		
1.98	11.5	3.2	200		
2.11	11.0	3.5	200		
2.24	11.0	5.9	180		
2.73	8.0	5.9	220		
2.87	7.5	5.9	220		
2.98	6.9	5.9	240		
3.10	6.5	5.9	200		
3.22	6.5	5.9	220		
3.76	5.2	7.0	220		
3.92	5.0	6.5	240		
4.26	4.0	7.0	280		

	MPB 17 ft bgs					
Shut off Blower 8/4/1998 2:45:00 PM						
Time						
Elapsed,			TPH,			
day	O ₂ , %	CO ₂ , %	ppmv			
0.00	17.0	4.0	650			
0.10	16.5	3.5	680			
0.33	15.0	4.0	820			
0.73	13.0	5.0	900			
0.86	12.0	5.0	900			
0.98	11.5	5.5	980			
1.10	10.5	5.5	1000			
1.23	10.0	6.0	1000			
1.72	9.0	6.5	1000			
1.84	8.0	6.5	1200			
1.97	7.0	6.9	1200			
2.09	6.5	7.0	1000			
2.23	6.0	7.0	1000			
2.72	4.0	8.2	1000			

	MPB 7 ft bgs				
Shut off Blower 8/4/1998 2:45:00 PM					
Time					
Elapsed,	,		TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	1.0	100		
0.76	18.0	1.5	120		
1.25	16.5	2.0	140		
1.75	15.0	2.5	140		
2.26	13.0	3.0	160		
2.75	11.0	2.5	180		
2.99	10.0	2.5	180		
3.11	10.0	3.5	180		
3.24	9.5	4.5	220		
3.78	9.0	5.1	220		
4.28	8.0	5.2	260		
4.78	6.5	6.8	260		
5.79	5.0	7.5	240		

	MPC 12 ft bgs				
Shut of	Shut off Blower 8/4/1998 2:45:00 PM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	1.0	95		
0.35	18.0	1.5	120		
0.75	16.0	2.5	140		
0.99	14.0	3.5	140		
1.11	12.5	4.0	140		
1.18	11.5	4.0	200		
1.23	11.0	4.5	180		
1.74	10.5	5.0	160		
1.99	8.5	5.5	200		
2.11	7.0	6.5	220		
2.25	5.5	7.5	200		
2.73	7.0	7.5	220		
2.87	7.0	7.5	220		
3.23	5.0	8.0	220		
3.77	4.5	9.0	220		

	MPC 17 ft bgs			
Shut of	f Blower 8/	4/1998 2:4	5:00 PM	
Time	•			
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	0.5	22.5	1350	
0.10	0.5	16.0	1200	
0.34	0.5	15.0	1400	
1.27	0.5	16.0	420	
1.77	0.0	15.0	1400	

	MPC 7 ft bgs				
Shut of	f Blower 8/	4/1998 2:4	5:00 PM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	1.0	95		
0.77	19.0	1.5	100		
1.25	18.0	1.5	120		
1.75	17.0	1.5	120		
2.26	15.5	2.1	120		
2.75	14.5	2.0	160		
3.25	13.0	3.0	160		
3.78	12.0	3.9	180		
4.28	11.0	3.9	220		
4.78	10.0	4.5	200		
5.79	9.0	5.0	200		

	MPD 12 ft bgs			
Shut off Blower 8/4/1998 2:45:00 PM				
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.9	0.5	34	
0.35	20.5	0.0	82	
0.75	20.0	0.0	80	
0.99	19.5	0.0	70	
1.24	19.5	0.2	78	
1.74	18.0	0.5	60	
1.99	16.5	0.4	100	
2.11	16.0	0.5	100	
2.25	15.5	0.5	72	
2.74	14.0	8.0	100	
3.23	11.5	1.2	120	
3.77	10.0	2.0	120	
3.92	9.5	2.0	160	
4.09	9.0	2.5	160	
4.26	8.5	2.6	180	
4.76	7.0	3.9	200	
5.74	5.0	5.0	200	

MPD 17 ft bgs					
Shut of	Shut off Blower 8/4/1998 2:45:00 PM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	19.5	1.0	190		
0.10	19.0	1.0	260		
0.33	16.0	2.0	460		
0.73	12.5	3.5	720		
0.85	11.0	4.0	820		
0.97	10.0	4.0	900		
1.10	8.5	4.5	880		
1.18	8.0	5.0	1000		
1.22	8.0	5.0	900		
1.72	6.0	6.0	740		
1.84	5.0	6.0	1000		
1.97	4.0	6.5	1000		
2.10	3.0	6.9	1000		
2.23	3.0	6.9	900		

	MPD 7 ft bgs				
Shut of	f Blower 8/	4/1998 2:4	5:00 PM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.0	54		
0.77	20.5	0.5	80		
1.26	20.0	0.5	98		
1.76	19.0	0.5	100		
2.27	18.0	0.5	98		
2.75	17.5	0.6	100		
3.25	16.5	0.7	100		
3.78	15.0	0.9	100		
4.28	15.5	1.0	140		
4.78	13.0	1.5	140		
5.79	10.5	2.5	160		

	MPE 12 ft bgs				
Shut of	Shut off Blower 8/4/1998 2:45:00 PM				
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.0	0.8	74		
0.36	19.0	1.0	100		
0.75	16.0	2.5	140		
0.99	14.5	3.0	140		
1.11	14.0	3.0	140		
1.24	13.5	3.5	180		
1.74	11.0	4.5	180		
1.86	10.5	4.9	240		
1.99	10.0	4.9	220		
2.25	10.0	5.0	180		
2.74	9.0	7.0	200		
· 3.10	8.0	6.5	180		
3.23	8.0	6.5	180		
3.77	7.0	7.5	180		
4.09	6.0	7.0	200		
4.26	6.0	6.9	260		
4.76	6.0	8.5	240		
5.78	5.0	8.1	240		

	MPE 17 ft bgs			
Shut of	Blower 8/	4/1998 2:4	5:00 PM	
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	12.0	8.5	920	
0.32	10.0	7.0	1000	
0.72	6.0	10.0	1000	
0.85	5.0	10.5	1000	
0.97	4.0	11.0	1200	
1.09	3.5	11.0	1000	
1.27	3.0	11.5	300	
1.78	1.0	12.0	1000	

	MPE 7 ft bgs				
Shut of	f Blower 8/	4/1998 2:4	5:00 PM		
Time					
Elapsed,			TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	19.0	2.0	110		
0.77	17.0	2.5	140		
1.26	17.0	2.5	140		
1.76	15.0	3.0	140		
2.27	14.0	3.5	140		
2.75	13.0	4.0	200		
3.25	12.0	4.0	200		
3.79	11.0	4.9	180		
4.28	10.5	4.5	240		
4.78	10.5	5.2	220		
5.80	9.5	5.5	200		

MPF 12 ft bgs					
Shut of	Shut off Blower 8/4/1998 2:45:00 PM				
Time Elapsed,	-		TPH,		
day	O ₂ , %	CO ₂ , %	ppmv		
0.00	20.9	0.0	42		
0.36	21.0	0.5	70		
0.75	20.0	0.5	82		
0.99	20.0	0.5	78		
1.24	19.5	0.5	92		
1.74	18.5	0.5	60		
1.99	17.5	0.5	100		
2.25	17.0	0.6	64		
2.74	16.0	0.8	100		
3.23	14.0	0.8	100		
3.77	13.0	1.2	100		
4.10	11.5	1.5	100		
4.27	11.0	1.5	160		
4.76	10.5	2.0	140		
5.78	8.5	2.8	140		

MPF 17 ft bgs			
Shut of		4/1998 2:4	5:00 PM
Time Elapsed,	0 %	CO. %	трн,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	17.0	4.0	500
0.10	17.0	3.0	500
0.33	17.0	3.5	620
0.73	16.0	4.0	720
0.85	15.0	4.0	760
0.98	14.5	4.0	940
1.10	14.0	4.0	680
1.22	13.5	4.0	940
1.72	12.0	4.5	620
1.85	11.5	4.5	1000
1.97	11.0	4.5	1000
2.10	10.5	4.5	1000
2.23	10.0	4.9	800
2.72	9.0	5.5	1000
2.86	8.0	5.9	1000
2.97	8.0	5.9	1000
3.09	7.0	5.9	940
3.22	7.0	6.0	700
3.76	6.0	6.2	740
3.92	5.0	6.2	660

	MPF 7 ft bgs				
Shut of	f Blower 8/	4/1998 2:4	5:00 PM		
Time Elapsed, day	O ₂ , %	CO ₂ , %	TPH, ppmv		
0.00	20.5	0.5	68		
0.77	20.5	0.5	100		
1.26	19.0	0.5	100		
1.76	19.5	0.6	100		
2.27	19.0	0.7	100		
2.75	18.0	0.7	100		
3.25	17.0	0.8	· 100		
3.79	16.0	0.9	100		
4.28	15.0	0.9	140		
4.79	14.0	1.0	140		
5.80	12.0	1.2	120		

MPG 12 ft bgs				
Shut of	Shut off Blower 8/4/1998 2:45:00 PM			
Time				
Elapsed,	٠		TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	18.0	2.5	120	
0.36	18.0	2.5	120	
0.76	17.0	3.0	160	
1.00	16.5	3.0	160	
1.24	16.0	3.0	160	
1.74	15.0	3.2	140	
1.99	14.0	3.5	200	
2.12	14.0	3.5	140	
2.26	14.0	3.5	180	
2.74	13.0	4.5	180	
3.23	12.0	4.5	180	
3.78	11.0	4.9	180	
4.10	10.0	4.9	180	
4.27	9.5	4.9	240	
4.77	8.5	6.0	220	
5.79	7.0	6.2	220	

MPG 17 ft bgs			
Shut off Blower 8/4/1998 2:45:00 PM			
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	11.0	8.5	1000
0.09	11.5	6.9	950
0.32	11.0	7.0	1000
0.72	10.0	8.0	1000
0.84	10.0	7.5	900
0.97	9.0	8.0	1200
1.09	8.5	8.0	1000
1.22	8.0	8.0	1200
1.72	8.0	8.0	1000
1.85	7.0	8.0	1200
1.98	6.5	8.8	1200
2.10	6.5	8.0	1200
2.24	6.0	8.8	1000
2.72	5.0	9.0	1000
2.86	5.0	9.5	1000
2.97	4.9	8.5	1000

MPG 7 ft bgs				
Shut of	Shut off Blower 8/4/1998 2:45:00 PM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.0	0.8	88	
0.78	19.5	1.0	100	
1.27	18.0	1.2	120	
1.77	18.0	1.2	120	
2.27	17.0	1.5	120	
2.76	16.5	2.0	160	
3.25	15.0	2.2	160	
3.79	14.5	2.8	160	
4.29	14.0	2.8	200	
4.79	13.0	3.2	220	
5.80	11.0	3.5	200	

MPH 12 ft bgs			
Shut off Blower 8/4/1998 2:45:00 PM			
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.9	0.0	38
0.36	21.0	0.0	52
0.76	20.5	0.0	76
1.00	19.5	0.2	72
1.25	19.0	0.4	76
1.75	17.5	0.4	76
1.86	17.0	0.5	100
2.00	17.0	0.5	100
2.26	16.0	0.6	100
2.74	14.0	1.0	100
2.98	13.5	0.7	100
3.10	12.5	1.0	100
3.24	12.0	1.2	120
3.78	11.0	2.0	140
4.10	10.0	2.0	140
4.27	9.0	2.5	200
4.77	7.5	4.0	200
5.79	5.0	4.9	220

MPH 17 ft bgs			
Shut off Blower 8/4/1998 2:45:00 PM			
Time			
Elapsed,			TPH,
day	O ₂ , %	CO ₂ , %	ppmv
0.00	20.0	1.0	220
0.10	19.0	1.0	250
0.33	18.0	1.5	500
0.73	15.5	2.5	580
0.85	14.5	2.5	540
0.97	14.0	3.0	820
1.10	13.0	3.0	620
1.73	10.5	4.0	640
1.85	10.0	4.0	900
1.98	9.5	4.0	1000
2.10	9.0	4.2	1000
2.24	8.5	4.5	680
2.73	7.0	5.5	1000
2.87	6.5	5.5	960
2.97	6.0	5.5	960
3.10	5.0	5.9	700
3.22	4.5	5.9	920

MPH 7 ft bgs				
Shut of	Shut off Blower 8/4/1998 2:45:00 PM			
Time				
Elapsed,			TPH,	
day	O ₂ , %	CO ₂ , %	ppmv	
0.00	20.9	0.0	48	
0.78	20.5	0.0	74	
1.26	20.5	0.2	76	
1.77	19.5	0.2	88	
2.27	18.5	0.3	86	
2.76	17.0	0.4	100	
3.25	16.0	0.5	100	
3.79	15.0	0.7	100	
4.29	14.0	0.7	120	
4.79	14.0	1.0	140	
5.80	10.0	2.0	160	